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DECEMBER, here in the north, is certainly a cold month. Yes, one does not look for primroses under the hedges, nor gather violets in the valleys, often, at this season. One must be content to enjoy a bright sky over head, and a frosty walk under foot; one must find pleasure in the anatomy of trees, and the grand outline of hills and mountains half covered with snow. And then, to be sure, there are the *evergreens*. What a pleasant thing it is to see how bravely they stand their ground, and bid defiance even to zero; especially those two fine old veterans, the *Hemlock* and the *White Pine*. They, indeed, smile defiance at all the attacks of the Ice King. It is not easy to make a winter landscape dull or gloomy where they stand, ready as they are at all times with such a sturdy look of wholesome content in every bough.

That must be an insipid climate, depend upon it, where there is "summer all the year round." In an ideal point of view,—that is, for angels and "beatitudes"—it is, nay, it must be, quite perfect. Their sensations never wear out. But to us, poor mortals, compounded as we are of such a moiety of clay, and alas, too many of us full of inconstancy,—always demanding variety—always looking for a change—wearying, as the angels do not, of things which ought to satisfy any reasonable creature forever; no, even perpetual summer will not do for us. Winter, keen and frosty winter, comes to brace up our languid nerves. It acts like a long night's sleep, after a day full of exciting events. Spring comes back again to us like a positively new miracle! To watch all these black and leafless trees suddenly become draped with green again, to see the ice-bound and snow-clad earth, now so dead and cold, absolutely bud and grow warm with new life,—that, certainly, is a joy which never animates the soul of our fellow beings of the equator.

"But the winter, the long winter—without verdure—without foliage—without flowers—all so bleak and barren." Softly, warm weather friend, open this little glazed door, out of the parlor, even now, while the icicles hang from the eaves, and what do you see? Truly a cheering and enlivening prospect, we think; a little miniature tropical scene, separated from the outer frost-world only by a few panes of glass, and yet as gay and blooming as the valley of Cashmere in June. What can be purer than these pure, spotless double white,—what richer than these rich, parti-coloured Camellias? What more delicate than

these Heaths, with their little fairy-like bells? What more fresh and airy than these Azaleas? What more delicious than these Daphnes, and Neapolitan Violets? Why, one can spend an hour here, every day, in studying these curious and beautiful strangers—belles of other climes—that turn winter into summer, to repay us for a little warmth and shelter. Is there not something exciting and gratifying in this little spectacle of our triumph of art over nature? this holding out a little garden of the most delicate plants in the very face of winter, stern as he is, and bidding him defiance to his teeth? Truly yes; and therefore, to one who has enough of vegetable sympathy in his nature to love flowers with all his or her heart—to love them enough to watch over them, to care for all their wants, and to feel an absolute thrill of joy as the first delicate bit of colour mounts into the cheek of every blushing bud as it is about to burst open,—to such of our readers, we say, a GREEN-HOUSE is a great comfort and consolation!

There are many of our readers who enjoy the luxury of green-houses, hot-houses, and conservatories,—large, beautifully constructed, heated with hot water pipes, paved with marble, and filled with every rare and beautiful exotic worth having, from the bird-like air plants of Guiana to the jewel-like Fuchsias of Mexico. They have taste, and much "money in their purses." They want no advice from us; they have only to say "let us have green-houses," and they have them.

But we have also other readers, many thousands of them, who have quite as much natural taste, and not an hundreth part as much of the "needful" with which to gratify it. Yes, many, who look upon a green-house as a sort of crystal palace, which it requires a great deal of skill to construct, and untold wealth to pay for and keep in order. The little conversation that we hold to day must be considered as addressed to this latter class; and we dont propose to show even them, how to build a green-house for nothing,—but how it may be built cheaply, and so simply that it is not necessary to send for the architect of Trinity Church to give them a plan for its construction.

The idea that comes straightway into one's head, when a green-house is mentioned, is something with a half roof stuck against a wall, and glazed all over,—what gardeners call a lean-to or shed-roofed green-house. This is a very good form where economy alone is to be thought of; but not in the least will it please the eye of taste. We dislike it, because there is something incomplete about it; it is, in fact, only half a green-house.

We must have, then, the idea, in a complete form, by having the whole roof—what in garden architecture is called a "span-roof"—which, indeed, is nothing more than the common form of the roof of a house, sloping both ways from the ridge pole to the eaves.

A green-house may be of any size, from ten to as many hundred feet; but let us now, for the sake of having something definite before us, choose to plan one 15 by 20 feet. We will suppose it attached to a cottage in the country, extending out 20 feet, either on the south, or the east, or the west side; for, though the south is the best aspect, it will do in this bright and sunny climate very well in either of the others, provided it is fully exposed to the sun, and not concealed by trees at the sunny time of day.

Taking *fig.* 32 as the ground plan, you will see that by cutting down the window in the parlor, so as to make a glazed door of it, you have the opening precisely where

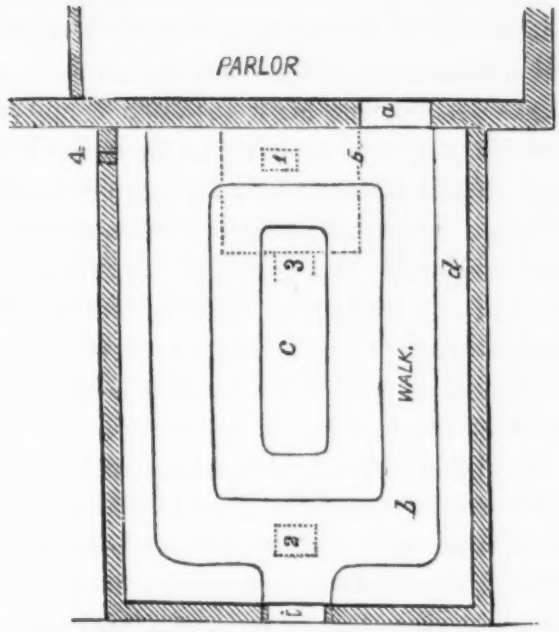



Fig. 32.—*Plan of a small Green-House.*

you want it for convenience, and exactly where there will be a fine vista down the walk as you sit in the parlor. Now, by having this house a little wider than usual, with an open roof, our plants have the light on all sides; consequently, they are never *drawn*. Besides this, instead of a single walk down the front of the house, at the end of which you are forced to wheel about, like a grenadier, and return; you have the agreeable variety of making the entire circuit of the house, reaching the same spot again, with something new before you at every step. This walk is 2½ feet wide. The stage for the tall plants is a parallelogram, in the middle of the house, *c*, 7 feet wide; the shelf, which borders the margin of the house, *d*, is about 18 inches wide. This will hold all the small pots, the more delicate growing plants, the winter flowering bulbs, and all those little favorites which of themselves like best to be near the light, and which one likes to have near the eye. It is quite incredible what a number of dozen of small plants this single shelf, running nearly all round, will hold.

Now let us take a glance at the plan of

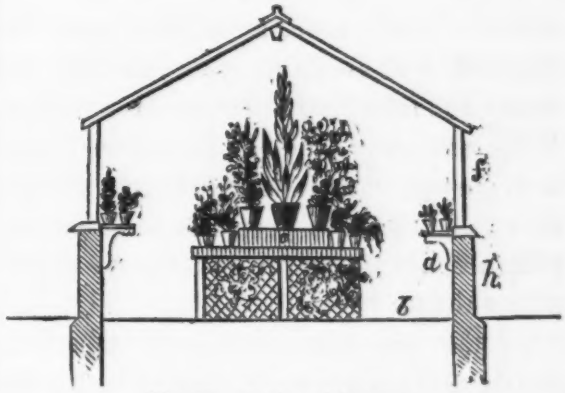



Fig. 33.—*Section of the Same.*

the *section* of the green-house, *fig.* 33, which may be supposed to be a *slice* down through the end of it. The sides of the house are 8 feet high. They consist of a row of sashes, (*f*) 3½ feet high, placed just below the plate that supports the roof, and a wall, *h*, on which these sashes stand. This may be a wall of brick or stone; (if of the former, 8 inches thick is sufficient;) or it may, when it is to be attached to a wooden dwelling, be built of wood — good cedar posts being set as supports 3½ feet deep, and lined with weather boarding on each side, leaving a space of 12 inches wide, to be filled very compactly with charcoal-dust, or dry tan.

At the farther end of the house is a door, *i*.

The roof may rise in the middle so as to be from 12 to 15 feet high; (in our plan, it is shown 12 feet.) It is wholly glazed,— the sashes on either side *sliding* down in the rafters, so as to admit air when necessary. The rafters themselves to be placed about 4 feet apart. Is it not a neat little green-house — this structure that we have conjured up before you? It is particularly light and airy; and do you not observe that the great charm about it, is that every plant is within reach — always inviting attention, always ready to be enjoyed? Truly, it is not like those tall houses, with stages

running up like stairs, entirely out of the reach of one's nose, arms or fingers. Do you not see, also, that you can very well water and take care of every plant yourself, if you are really fond of such things? Very well; now let us look a little into the way in which we are to keep this little place of pleasure always warm and genial for the plants themselves.

In the first place, we must inform our reader that we are not to have either a furnace with brick flues, or a boiler with hot water pipes. They are both excellent things; but we must have, at present, something simpler and more economical.

Everybody, in the northern states, very well knows what an *air-tight stove* is; a most complete and capital little machine, whether for wood or coal; most easily managed, and giving us almost the whole possible amount of caloric to be got out of hickory or anthracite. Now we mean to heat our little green-house with an air-tight stove, of good size; and we mean to heat it, too, in the latest and most approved system — nothing less than what the English call *Polmaise* — by which we are able to warm every part of the house alike; by which we shall be able to create a continual circulation of the warm air from one end of it, quite over the plants, to the other; and which, no doubt, they will mistake for a West India current of air every evening.

In order to bring this about, we must have an *air-chamber*. This also must be below the level of the green-house floor. It is not important under what part it is placed; it may be built wherever it is most convenient. In our plan, (*fig.* 32,) as there is a cellar under the parlor, we will put it next the cellar wall, so that there may be a door to enter it from this cellar. This air-chamber must be built of brick, say about 7 or 8 feet square, (as represented by the dotted lines around *b*.) The wall of this air-chamber should be two bricks thick at the sides and one brick at the ends, and all smoothly plastered on the inside. The top should be covered with large flagging stones; and upon the top of these, a course of bricks should be laid, which will form part of the floor of the walk in the green-house above. Or, if flagging is not to be had, then cover the whole with a low arch of brick work.

In this air-chamber we will place our air-tight stove, the smoke pipe of which must be brought back into the cellar again, so as to be carried into one of the chimney flues of the house. There must be a large sheet iron or cast iron door to the air-chamber, to enable us to feed the fire in the stove; and, in the top or covering of the air-chamber, directly in the middle of the walk, (at 1,) must be an opening 18 inches in diameter, covered with a grating, or register. Through this the hot air will rise into the house.

Now, both that we may heat the house easily and quickly, and also that we may have that continual *circulation* of air which is so wholesome for the plants, we must also have what is called a "*cold-air drain*;" it must lead from that end of the house farthest from the hot-air chamber, and therefore the coldest end, directly to the bottom of the air-chamber itself. We will put the mouth of this drain in the middle of the walk near the door, at 2, with a grating over it also. This drain shall be simply a long box, made of boards; and we will have it 1 foot by 2 feet, inside. From the mouth, 2, it shall lead along, in a straight line, just below the level of the floor, to B, where it descends so as to enter on a level with the floor of the hot-air chamber. We will also have a smaller box, or drain, for *fresh air*, leading from the bottom of

the air-chamber to the open air through the foundation wall, at 4, to supply the house with fresh air. This air-pipe should be six inches in diameter, and there should be a *slide* in it to enable us to shut it up, whenever the weather is too cold to admit of its being open, without lowering the temperature of the house too much.

Now let us suppose all is ready, and that a fire is lighted in our air-tight stove. The air in the air-chamber becoming heated, it rises rapidly, and passes into the green-house, through the grated opening at 1. Very quickly, then, in order to supply the deficiency caused in the air-chamber, the air rushes through the cold-air drain. This makes a current from the coolest part of the house, at 2, towards the air-chamber; and, to make good again the lost air carried off from that end of the house, the warm stream, which rises through the opening at 1, immediately flows over the tops of the plants towards the opposite end of the house, and, as it becomes cold again, descends and enters the mouth of the cold-air drain, at 2. By taking advantage of this simple and beautiful principle,—that is to say, the *rising* of warm air, we are able in this way to heat every part of the house alike, and have a constant bland zephyr passing over the plants.*

It is not easy to find anything simpler, or more easily managed, than this way of heating a small green-house. In this latitude, a couple of cords of wood, or a couple of tons of anthracite, will be sufficient for the whole winter; for, it must be remembered, that no matter how cold the day, the moment the sun shines, there is not the slightest need of a fire; the temperature will then immediately begin to rise. Usually, after bright days, which are abundant in our coldest winter months, we shall not need to light a fire till one, two, or sometimes three hours after sun-set; and if our air-tight is one of good size, and constructed as it should be, so as to maintain a good fire for a long time, our last replenishing in the evening need not usually be later than 10 o'clock; but we must, in this case, give a full supply of fuel for the night's consumption.

Every sensible person will, of course, use light outside shutters, for the roof and side-glass of such a house as this. We slide them on at sunset, and take them off at sunrise; and by this means, we not only save one-third of our fuel, but keep up a pleasant green-house temperature without cold draughts at night. It is worth while to remember, too, that in glazing the roof, the most useful possible size for the glass is 4-by-6 inches, or, at the largest, 6-by-8 inches. The former answers the purpose perfectly, and is not only much less costly than large glass, but is also far less expensive to keep in repair; neither hail nor frost breaking the small panes, as they do the large ones.

As to the minor details, we will have a small cistern under the floor, into which the water from the roof can be conveyed for watering the plants. Beneath the centre stage, (which may be partly concealed with lattice work,) we may keep our dahlia roots, and a dozen other sorts of half hardy plants for the summer border, now dormant, and snugly packed quite out of sight.

We did intend, when we sat down, to give our novices a great deal of exceedingly valuable advice about the sorts of plants that they ought to cultivate in this

* Our readers, to whom this mode of heating is not quite clear, will please turn back to a detailed plan of the Polmaise mode, page 124, and also examine the plan of "A Subscriber," in this number.

We should add, that when a *coal* air-tight stove is used, there should be a water pan suspended over it. For a wood air-tight, it is not necessary.

glazed flower garden. But we see that we are getting beyond the limits of a leader, and must not, therefore, weary those of our subscribers, who take no more interest in geraniums than we do in Irish landlords, with too long a parley on exotics.

We must have space enough, however, for a word or two more to beginners. Let them take our word for it,—if they prefer an abundance of beautiful flowers to a *pot-pourri*, of every imaginable species that can be grown under glass, they had better confine themselves to a few really worthy and respectable genera. If they only want winter blooming plants, then let them take *Camellias* and *Chinese Azaleas*, as the ground work of their collection, filling in the interstices with daphnes, heaths, sweet scented violets, and choice bulbs. For the spring, rely on everblooming roses,* and geraniums. If they also wish to have the green-house gay in summer, they must *shade* it, (or wash the under side of the roof-glass with whiting,) and grow *Fuchsias* and *Achimenes*. In this way, they will never be without flowers in abundance, while their neighbors, who collect every new thing to be heard of under the sun, will have more tall stalks and meagre foliage, than bright blossoms and odorous bouquets for their trouble.

## THE KIND OF INFORMATION NOW WANTED IN POMOLOGY.

BY A YOUNG PLANTER, NEW-YORK.

THERE are many varieties of plants that are cultivated with very unsatisfactory results, in localities in which others, of the same species, flourish with at least their ordinary luxuriance. It has been found that, by certain operations upon the soil, these varieties may be made to thrive in many places that have proved naturally unpropitious to them. A Frenchman will find material for a capital *ragout*, where an Englishman would starve; and a soil from which the Bartlett pear will assimilate material for an abundant crop of fruit, will be death to the Doyenné. On another soil, both may be equally well accommodated; and on yet another, the Bartlett again shall fail.

Owing to the eminent talent devoted to the improvement of the pear, by men whose attainments should give them a name among the philosophers of the age, more, perhaps, s known of the peculiar habits of separate varieties of this fruit, than of those of any other. It is hardly possible for any one person to command all the circumstances which may be supposed to affect a number of trees, each with a peculiar influence; but every one may observe some unusual effects, as the result of his own culture of particular varieties, and may eventually trace them to constant causes.

It is extremely desirable that such discoveries, or observations and conjectures, which may be compared with those of others, and that suggest investigations at other points that may lead to discoveries, should be made public.

At the recent pomological convention in New-York, the *Glout Morceau Pear*, being under discussion, gentlemen from six different localities followed each other in de-

* Nothing is more satisfactory than those fine Noisette roses, the *Lamarque* and *Cloth of Gold*, planted in an inside border, and trained up under the rafters of the green-house. In this way, they grow to great size, and give a profusion of roses.

claring that it had proved with them every way unexceptionable. Then another arose, with whom it had not done as well. The former had raised it, I believe, invariably on rather stiff, loamy soils, as at Salem, Boston, Worcester and Hartford. The latter, on the sandy soil (probably,) of New-Jersey. Yet, it was to be remarked, that there were some pears whose merits were questioned, that had succeeded perfectly with him; even better, perhaps, than in those quarters from which the Glout Morceau was voted perfect. We should not draw confident inferences from these facts; but they are valuable, as starting points, from which the results of further observation may lead to an authentic list of varieties, particularly adapted to culture on sandy soils, or the contrary. In the discussion on the Beurré d'Aremberg, another straw was lifted, which might prove a hint to rather complicated, yet important inquiries; and, as a matter of information, is worth "making a note of." This pear was spoken of, as unequalled as a standard tree, *both* at Boston and at Salem; as a dwarf, however, it entirely failed to give satisfaction at Boston, yet succeeding at Salem. Very curious cases, of similar character, are frequently observed. Is it a peculiarity of soil, or of climate, or of cultivation, that occasions this difference? Until we are informed, every man must take the chance for failure in trying it on his own ground, or must substitute for it, if his space is limited, some other variety, as the *Louise Bonne de Jersey*, or the Glout Morceau, which are known to be more invariably good on quince stocks.

From one of the most valuable communications, presented to the convention, containing the observations of Mr. MANNICE, on several fruits, growing on the south shore of Long-Island, it appeared that the Napoleon Pear proved very poor in that situation. In the garden of my neighbor, Dr. CYRUS PERKINS, this pear bears most abundant crops of fruit, which, for its peculiar qualities, was never surpassed. Both situations are exposed to the sea, with similar aspects, and within twenty miles of each other. The difference is, probably, in the nature of the soil; one being sandy, the other clayey loam.

The fruit committee of the convention very judiciously added to their list of first rate fruits, a few of each sort, which could be recommended as such only for *certain localities*. I was sorry to see this objected to by a few members. The studied results of the labors of the committee room, should not be rashly attacked. It seems to me, that in this case, the exception taken was indiscreet, and the arguments proved more than they were intended to. It was said, for example, that the *Yellow Bellefleur Apple* had been tasted in perfection from a tree in the garden of the late Mr. BULL, of Hartford. This was evidence sufficient, that it was equally *first rate*, and well adapted to general cultivation there, as anywhere; although the delegates from the Hartford society informed the convention that, under ordinary circumstances, it did *not* flourish there as well as the other varieties reported. But the tree referred to grew in garden soil, in the hands of a skilful and pains-taking man, in whose fairy land it might almost be said, nothing ever appeared that was not soon transformed, under the magic of his culture, into an object of beauty and value. Do not the facts rather prove the correctness of the committee's information? It seems to me, their hint was just what is wanted. Was it their business to ascertain what fruit might be *made "first rate?"* I never saw finer tropical fruit (though "I have wandered to the farthest Ind,") than our lamented friend

has shown me, almost within the shade of that same Bellefleur, there growing, by the same admirable skill and care that perfected the apples, so highly and so justly lauded to the convention.

Each of the exceptions made by the committee was, in its turn, sustained by the evidence of those present from this or that section; and it would not have been difficult to ascertain from them the particular localities, or the characters of the soils which are unsuited to the reserved fruits. Not a member of the convention professed to have eaten a first rate *Newtown Pippin*, which had been raised in New-England; and I do not believe any one, that heard the discussion of the *Louise Bonne de Jersey*, would choose to plant that pear, except on quince stocks.

Such facts may accumulate, that a future convention shall be able to furnish the public with a classification of fruit trees, on the basis of their congenial soils; and, for this most desirable end, is it too much to ask all fruit growers to observe the peculiarities incident to their various localities, and to furnish statements of them through our periodicals, for the consideration of the horticultural world? A YOUNG PLANTER.

*New-York, Nov.* 8, 1848.

## FAMILIAR BOTANY.

BY DR. WM. W. VALK, FLUSHING, L. I.

TO MANY of the readers of the Horticulturist, we hope the present article will prove both useful and interesting. It is almost wholly of an eclectic character; our materials being culled from different sources, and arranged with particular reference to the facility with which the subject may be readily and best understood, by those who are not yet acquainted with the rudimental knowledge of the science, as systematised and adopted by the immortal Linnæus.

We are far from contending that there is any *necessity* whatever for the studying of *botany*, in order to make a man a practical gardener. He may be quite equal to the task of laying out and cultivating a garden in perfection, and fully competent to the exercise of any degree of skill in so doing, without having made botany "the stepping stone" thereto. But yet, we are bound to admit, that the study of it is delightful, and that all should learn what they can of it, whenever the opportunity is presented to them.

To render science useful, its principles should be consistent with nature and common sense; and there should appear, among its teachers, nothing like presumption or irreverence. Therefore, we can have nothing to do with those ridiculous theories, which appear to us contemptible, because we have been taught, and wish to have our children taught, that God's works are *always perfect*.

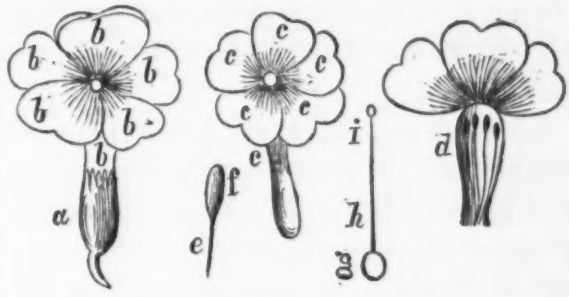
The classes and orders of Linnæus may be learned with advantage by every lover of plants; because this kind of knowledge will increase their enjoyment, and lead them into a desire to know more. Our great object is to render these lessons acceptable to the most humble aspirant. There is no reason why the *useful* portions of botany should not be studied by everybody who feels interested in gardening opera-

tions. We shall, then, endeavor to simplify the early lessons, and thus clear the way for those who know nothing about botany, so that they may be enabled to classify plants for the better understanding of their nature, and the avoidance of such as are poisonous.

Linnæus divided plants into *twenty-four classes*, and arranged them *according to the construction of the flower*. What is a flower? It may appear singular that a question, apparently so simple, should be asked; but there are *two* answers to it, as diametrically opposite as they can be, and both *cannot* be right. By an author of no little celebrity in horticulture, we are told that a flower "*is in reality a stunted branch;* the growth of which is checked, and its power of elongation destroyed." We dont believe a word of it; for, to our conception, there is nothing in nature more *perfect* than a flower. It is well to talk of the spread of learning, and the advancement of science; but if by this, we are to understand a blind following of teachers who outrage truth, better that we leave it alone.

The second answer we like better:—a flower "*is a perfect specimen of God's handiwork.*" So we think, and so thought Professor Rennie and Dr. Herschel, in opposition to the absurd fancies and unmitigated nonsense but recently propagated.

The most ready way of beginning the study of botany, is by learning about a *dozen* terms, and being able to number as far as thirty, which every child can do; thus, any one may soon get a tolerable knowledge of several hundred plants, and be able to assign these to their proper classes and orders in the Linnæan system. To facilitate the learning of the terms, get any flower—a lily, a primrose, or a buttercup, and study them over once and again, naming them each time, till they are familiar. The annexed figures will explain the several parts clearly.




1. On the *outside* of the flower a green sort of cup is seen, (*a*,) in which the coloured part stands as an egg does in an egg-cup. The learner may call this the *flower-cup;* but botanists call it by the Greek name, *calyx*.

2. Within this flower-cup, or calyx, which may be taken off to show what it contains, is seen the coloured part of the flower, (*b*;) that part which is yellow in the primrose, blue in the violet, and red in the rose. This may be called the *blossom;* but botanists call it by the Latin name, *corolla*.

3. In the primrose, this blossom, or corolla, is seen to be in *one* piece; but in the rose and other flowers, it is of *several* pieces, (*c*.) The learner may call each of the pieces a *flower-leaf;* but botanists call it a *petal*.

4. Within the flower-leaf, or *petal*, in the primrose, fine small bodies may be seen standing round in a circle, (*d*,) with little tips, somewhat *shaped* like a barley-corn, though a great deal smaller, and a slender stalk supports them. Each of the fine bodies the learner may call a *male;* but botanists call it a *stamen*.

5. The male part, or *stamen*, has two parts; an upper, and an under part. The under part may be called the *stalk*, (*e*;) but botanists call it the *filament*.

6. The top part (*f*,) may be called the *tip;* but botanists call it the *anther*.

7. When the tip, or *anther*, of the male

is broken or bursts, as it always does of itself, as soon as it is ripe, a coloured powder is seen, which the learner may call the *tip-dust;* but botanists call it the *pollen.*

8. When the calyx, the corolla, and the stamens are all cut away, the centre part of the flower alone will remain on the top of the stem. This part the learner may call the *female;* but botanists call it the *pistil.*

9. The female, or *pistil*, consists of a base, the middle, and a top. The base of the pistil, (*g*,) is always more or less bulged out; it *always* contains the seeds, and the learner may call it the *seed-vessel;* but botanists call it the *ovary.*

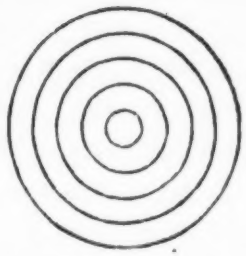
10. The middle part, (*h*,) of the pistil may be called the *pillar;* but botanists call it the *style.*

11. The top of the pistil the learner may call the *summit*, (*i;*) but botanists call it the *stigma.*

12. There is only one more term to be mentioned, at present, applied to a peculiar sort of leaf,—sometimes according to the kind of plant found on the flower-stem, often at the base of the leaves, and seen conspicuously in pinks, carnations and picotees. It frequently surrounds fruits, as the calyx does the corolla. This, which botanists call the *sub-calyx*, and other names according to its situation, we shall, for convenience, call the *scale.*

Now these dozen terms,—1. Calyx—2. Corolla—3. Petal—4. Stamen—5. Filament—6. Anther—7. Pollen—8. Pistil—9. Ovary—10. Style—11. Stigma—12. Scale,—are all which the learner need get perfectly, to begin with. A few other terms, but not more than half a dozen, may be wanted as we proceed.

The order in which these parts are met with in dissecting a flower, is best illustrated by placing five circles, one within the other. Thus, on the *outer* circle place the *scale*, whether it be leaf scale, flower scale, or fruit scale.



On the *second* circle place the flower-cup or *calyx*, whether it be in one piece or several pieces.

On the *third* circle place the blossom, or *corolla*, whether it consists of one *petal* or several.

On the *fourth* circle place the males, or *stamens*, whatever be their number, with their stalks or *filaments*, and their tips or *anthers*, containing the tip-dust or *pollen.*

On the *inner* circle place the female part, or *pistil*, with the seed-organ, or *ovary*, at the base, the pillar, or *style*, in the middle, and the summit, or *stigma*, on the top. Always begin the examination with the *outer* circle.

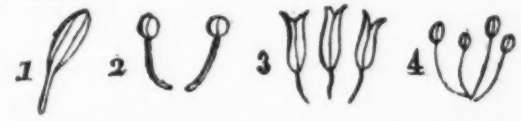
It will sometimes happen, that all the parts belonging to the five circles will not be found; but after a little experience, it will be easy to distinguish whether it be the *calyx*, or *corolla*, or any other part, which is wanting to complete all the circles.

The twelve terms having been perfectly understood, as well as the order in which the parts of the flower are placed on the five circles, the learner may now be instructed how to find the *class* in which any flower is ranked by Linnæus. These classes with their orders, are founded, among other facts, upon the different numbers and situations of the *male* and *female* organs in the flowers of plants. And here we have a wonderful instance of the economy of nature in assimilating plants to animals. At the very moment that the *anthers* of the male organs burst, and emit their *pollen*, the fe-

male *pistil* is ready to receive it. The atoms of the pollen strike root, as it were, upon the *stigma;* their influence is transmitted down the *style* to the *ovary*, the seeds swell and perfect themselves, and the process is completed. Thus it is that we *cross* the breeds of flowers, vegetables, and fruit, and very often bring about valuable improvements. To illustrate the twenty-four Linnæan classes, we give the following figures of those parts of flowers which brings each into its respective class:

The parts of the flowers here represented, only show the peculiar feature which brings each into its proper place.

The first grand division of the Linnæan system, consists of those plants with *conspicuous* flowers, and the organs of fructification evident. In the first *fifteen* classes, the stamens are *not* united, and the flowers are bisexual. In the 16th, 17th, and 18th classes, the stamens are united *by the filaments.* In the 19th class, the stamens are united *by the anthers* into a cylinder. In the 20th class, the stamens are attached to, and stand *upon the pistil.* In the 21st, 22d, and 23d classes, the flowers are of *distinct* sexes; and in the 24th, and last class, the only one in the *second* grand division, the flowers and parts of fructification are *not* evident.




Class I—Monandria.—Flowers with one *male organ*, or *stamen;* such as red-spurr, arrow-root, canna, marsh, samphire, &c.

Class II—Diandria.—Flowers with two *male organs*, or *stamens;* such as veronica, jasmine, lilac, rosemary, &c.

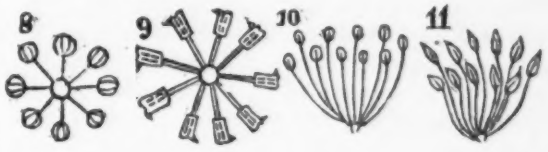
Class III—Triandria.—Flowers with three *male organs*, or *stamens;* such as valerian, gladiolus, iris, &c.

Class IV—Tetrandria.—Flowers with four *male organs*, or *stamens;* such as dogwood, galium, holly, box, &c.

Class V—Pentandria.—Flowers with five *male organs*, or *stamens;* such as solanum, primrose, forget-me-not, convolvulus, vine, gooseberry, currant, violet, &c.

Class VI—Hexandria.—Flowers with six *male organs*, or *stamens;* such as narcissus, tulips, snowdrops, hyacinths, berberis, &c.

Class VII—Heptandria.—Flowers with seven *male organs*, or *stamens;* such as the horse chestnut, &c.




Class VIII—Octandria.—Flowers with eight *male organs*, or *stamens;* such as heaths, Fuchsias, nasturtian, &c.

Class IX—Enneandria.—Flowers with nine *male organs*, or *stamens;* such as laurel, rhubarb, &c.

Class X—Decandria.—Flowers with ten *male organs*, or *stamens;* such as rhododendron, baptisia, hydrangeas, carnations, pinks, &c.

Class XI—Dodecandria.—Flowers with *twelve* to *nineteen male organs*, or *stamens;* such as sempervirum, mignonette, &c.

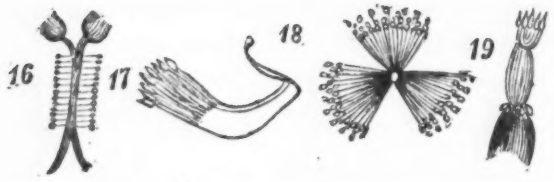
Class XII—Icosandria.—Flowers with an indefinite number of *male organs*, or *stamens*, but usually *twenty*, inserted in the calyx; such as the apple, pear, peach, bramble, &c.

Class XIII.—Polyandria.—Flowers with twenty or more *male organs*, or *stamens*, inserted in the receptacle, (or supporting part of the fructification;) such as the ranunculus, poppy, anemone, columbine, &c.

Class XIV—Didynamia.—Flowers with two *male organs*, or *stamens*, of one length, and two of another length, that is, two long and two short; such as digitalis, lavender, marjoram, balm, &c.

Class XV—Tetradynaia.—Flowers with six *stamens*, or *male organs*, *four* of them long, and *two* short; such as sea-kale, mustard, cabbage, wall-flower, &c.

Class XVI—Monadelphia.—Flowers with many *stamens*, or *male organs*, united by the *filaments* in one body; such as malva, laburnum, tiger flower, furze, camellia, hollyhock, &c.




Class XVII—Diadelphia.—Flowers with the *stamens*, or *male organs*, united by the *filaments* into *two* bodies; such as fumitory, milkwort, clover, tares, peas, beans, &c.

Class XVIII—Polyadelphia.—Flowers with the *stamens*, or *male organs*, united by the *filaments* into more than two bodies, usually three; such as orange and lemon trees, hypericum, &c.

Class XIX—Syngenesia.—Flowers with the *stamens*, or *male organs*, united *by the anthers* into a tube; such as dandelion, hawkweed, thistle, groundsel, marygold, &c.

Class XX—Gynandria.—Flowers with the *stamens* or *male organs b*, resting upon and attached to the *pistil*, or *female organs, a;* such as the lady's slipper, orchis, &c.

Class XXI—Monœcia.—Flowers, both *male* and *female* on the *same* plant,—the male flowers having no pistils, the female flowers no stamens; such as the begonia, oak, walnut, beech, pine, cucumber, larch, &c.

Class XXII—Diœcia.—The *male* and *female* flowers on *different* plants; such as the poplar, bryony, mistletoe, hemp, hops, &c.

Class XXIII—Polygamia.—In this class the flowers are either *only* male, or female, or *both* united in the same flower, that is male and female flowers, on the same, or on different plants, along with *hermaphrodite* ones; such as the common ash, sycamore, fan-palm, sensitive plant, &c.

Class XXIV—Cryptogamia.—Flowers with the reproductive organs scarcely visible,—of course the *flowers* are not apparent; such as seaweeds, moss, ferns, lichens, mushrooms, &c.

We have now enumerated the *classes* of Linnæus with their examples, and shall, as briefly as possible, do the same with the *orders* in each class.

Orders.—As the *classes* are formed chiefly from the number of the *stamens* in the flower, (especially in the first thirteen classes,) so the *orders* are formed principally from the number of the *styles*, viz., *Monogynia*, (one female.) style one. *Digynia*, styles two. Tryginia, styles three. Tetragynia, styles four. Pentagynia, styles five. Hexagynia, styles six. Heptagynia, styles seven. Octogynia, styles eight, &c. Polyginia, styles numerous.

Here are thirteen classes, and each has *one* order, referable to the number of the styles or *female* organs.

The 14th class has *two* orders; the first is called Gymnospermia, (a naked seed.) Seeds naked, *not* inclosed in a capsule. Example, *Lamium*. The second is called Angiospermia, (a seed vessel.) Seeds inclosed in a capsule. Example, *Digitalis*.

The 15th class also contains *two* orders; first, Siliquosa, (a long pod.) Pods long, as in *Sinapis* and *Brassica*. Second, Siliculosa, (a short pod.) Pods short, as in *Lepidium* and *Biscutella*.

The 16th, 17th, 18th, 20th, 21st, and 22d classes have their order formed exactly upon the same principles as in the formation of the class itself, that is, from the number of the *stamens*; as Monandria, Diandria, Triandria, Tetrandria, Pentrandria, Hexandria, &c.

The 19th class has *five* orders; first, Aqualis, (*equal.*) Florets of the disk and ray, *all* hermaphrodite. Second, Superflua, (*superfluous.*) Florets of the disk, hermaphrodite, of the ray female. Third, Frustranea, (*in vain.*) Florets of the disk fertile, of the ray sterile. Fourth, Necessaria, (necessary.) Florets of the ray female, of the disk male. Fifth, Segregata, (separated.) Each floret having its own peculiar involucum.

The 23d class has two orders, formed precisely on the same principles as the 21st and 22d classes, called Monœcia and Diœcia.

The 24th class has *nine* orders, formed chiefly from the reproductive organs. Of these, we shall only give the names, and a few examples of each. First, Filices, Ferns. Ex. *Polypodium, Ophioglossum*, &c. Second, Equisitaceæ, Horsetails. Ex. *Equisitum*. Third, Lycopodineæ, Club-mosses. Ex. *Lycopodium*. Fourth, Marsileaceæ. Ex. *Pilularia*. Fifth, Musci, Mosses. Ex. *Hypnum*. Sixth, Hepaticæ. Ex. *Marchantia*. Seventh, Algæ, Sea Weeds. Ex. *Exillaria, Conferva*. Eighth, Lichenes. Ex. *Lichens*. Ninth, Fungi. Ex. *Agaricus, Clavaria, Morchella*, &c.

This completes the outline we had in

view, and presents to the reader's mind a brief record of the structure of the Linnæan system of botany. If this is studied, and perfectly comprehended, further progress will be easy, as a considerable amount of fundamental knowledge will have been obtained, which may be most usefully applied. It is vastly agreeable to be able to appreciate the various modifications of organization that connect one tribe of plants with another, and to understand the infinite wisdom and beautiful simplicity of design, which are so visible in the vegetable world; the just appreciation of which, through countless gradations of form, structure, and modes of existence, it should be the constant aim of the botanist to demonstrate.

WM. W. VALK, M. D.

*Flushing, L. I., Nov.* 25, 1848.

## NOTES ON THE CULTURE OF THE CAMELLIA.

BY NOEL J. BECAR, NEW-YORK.

WE have great pleasure in giving the following notes to the readers of the Horticulturist.

They are written by a noted amateur cultivator, N. J. BECAR, Esq., who has the finest private collection of this superb plant, both as regards number of varieties and beauty of specimens, to be found in the United States.

The Camellia japonica has, indeed, been the favorite plant of Mr. BECAR for years. His superb Camellia-house at Brooklyn, 100 feet long, and filled with specimens, so admirably grown that they may be called *conservatory park-trees*, when compared with the ordinary ill-shaped *forest* growth of our green-houses, presents, in midwinter, the most glowing picture of exotic beauty that it is possible to conceive. We counted, last January, 120 flowers in bloom at once, on a single plant of the *Double White;* and there were many other sorts, scarcely less remarkable for their unusual size and beauty.

To Mr. BECAR's long devotion to this tribe of plants, and his great sagacity as a practical cultivator, we ascribe the remarkable perfection of his plants. Our readers will observe that his directions are strikingly simple, and free from the quackery of some of the old-school cultivators. It is, however, the simplicity of experienced skill—which knows what is really essential—that simplicity, at once so rarely found, and so valuable when found. ED.

DEAR SIR—Although I have had considerable experience in the culture of this noble plant—the CAMELLIA, yet my course of culture is so very simple that I fear I cannot impart much, if anything, that would interest the readers of your excellent journal. As, in your request, however, you desire "rough notes" of my mode of treatment, I comply with pleasure, hoping that you may be able to glean from my remarks something that will interest the readers of the Horticulturist.

I will commence with the SOIL, as I deem that a most important point, in the cultivation of the Camellia.

About midsummer I procure, from an old pasture or common, some rich loamy soil, or rather *sods*, 1½ or 2 inches thick. This I place in a heap, fully exposed to

the sun and air, until the grass is killed, and the sods are sufficiently rotten for use, which will be in about two months. The sods are then removed under a shed, and kept dry, so as to be fit for use at any season. I also procure, at the same time, some *leaf soil* from the woods, well decomposed, but light and "sweet." (I prefer the soil taken from the surface, and from a part of the woods where there is *rising ground;* as the leaf soil from a hollow is apt to be sour and unfit for use.) This I place at once under a shed, so as to keep it from rains. These two soils constitute all the materials for my Camellia compost, which is as follows: *equal parts of loam and leaf soil for very young plants*, (say from a mere cutting, up to six inches in height;) and as the plants increase in size, I increase also the quantity of *loam*, so that *my largest plants have two-thirds of loam* and *one-third of leaf soil.* I have formerly added to the above $\frac{1}{8}$ or $\frac{1}{10}$ of *well rotted manure*, with good effect; but finding that the manure generated many worms in the pots, I rejected it. I now prefer, instead, *guano-water*, used once a week, while the plants are growing freely, say in April and May. The proportion I employ, is one pound of good guano to 15 gallons of water.

I ought to have mentioned, that before mixing the loam with the leaf soil, the sods are *chopped up* fine with a spade; but this you would, of course, infer from the nature of the operation. I prefer the soil moderately coarse to having it too fine.

I have no particular rule for *re-potting* my Camellias. Any intelligent amateur or gardener will know, by the size of the plants and roots, what sized pots they require. I re-pot my Camellias once a year, except large plants, in very large pots or tubs; and the latter, once in two or three years. I give them as much pot-room as I think the roots will be able to encompass during that time. If too much pot-room is given, the soil does not dry as freely as it should, and is liable to become *sour*, which will inevitably destroy the roots, and of course the health of the plants. On the other hand, if too little pot-room is allowed, the plants will grow weak, the foliage will turn yellow, and the flowers will be small. Both extremes should be avoided. Camellias having very tender roots, they are very liable to be injured by over watering, or being kept too wet for a long time. It is, therefore, important to have the water pass freely through the pots; and for that, *good drainage*, with pot-shreds, is indispensable.

While I am yet on the subject of re-potting, I will add that I usually re-pot my Camellias in the *spring*, just before they begin to grow. I prefer the spring to the fall for re-potting, for two reasons; one is that I have more leisure to devote to them at this time; and the other, and more important, is that when re-potted in the fall, the buds are more liable to receive a check and turn black, particularly on plants, the balls of which require *picking* to extricate the old soil. Plants that are well rooted require no picking at the roots; and so, can be re-potted almost at any time without any injury whatever.

When Camellias are re-potted in the fall, their roots will reach the side of the pots by the following spring, and are more exposed to injury from our hot summer; but when re-potted in the spring, the roots, not reaching the sides of the pots so soon, are not so exposed to the injurious effect. After stating so much, I will still add, that the choice of the two seasons for re-potting is of course a matter of opinion and convenience; if the plants are well treated, they will do well whether re-potted in the spring or autumn.

I now come to another important point in the management of the Camellia. This is the *watering*,—on the proper management of which will much depend the health and vigor of the plants. No particular rule can be laid down for watering; it must depend on the practical knowledge of the amateur or gardener. There is, however, no absolute difficulty about it. Good common sense, and due attention are all that are requisite to perform with perfect success this part of the management. Camellias require to be freely watered *when they are growing*. Partial watering should be avoided. I mean by this, that when they are watered, it should be done *thoroughly*, so that the water will go *through the pot*, and not on the surface only; and hence it is best not to water unless the plant actually needs it; for if kept too wet long, the soil will lose that *sweetness* which the delicate roots of this genus always require.

The Camellia delights in a moist atmosphere; and for that reason, frequent *syringing* of the leaves will greatly promote their growth and vigor. I usually commence syringing the top of the plants once a day in the spring, when the plants begin to grow, and that in the morning, when the heat of the green-house is moderately warm. I increase the syringing as the warm weather advances, so that they have two good syringings every day (night and morning,) in summer, when the weather is very hot and dry. This not only promotes their health, but it keeps off the insects, to which the Camellia is liable, and especially that great enemy and plague of the gardener—the *red spider*. The syringing should be decreased as the temperature becomes cooler in the autumn, and should be avoided when the weather is very damp or very cold. Light syringing in winter would be very beneficial to the plants when the house is sufficiently warm, say about *temperate* (Fahrenheit,) and particularly so, as the fires which are required in cold weather are apt to make the air much too dry for Camellias; but as the syringing would injure the flowers, it is avoided during the blooming season. To maintain, in some measure, that moist air which is so congenial to the Camellia, and which is lost by the action of the fire, I sprinkle water upon the pipes, flues and floors of the green-house, and that usually in the morning. After the hot fires of the night, the foliage is very susceptible of dryness in the air; and as syringing cannot be used, on account of spoiling the flowers, the water thrown on the pipes or flues creates a moist air and dew, which, with the genial warmth of the sun, greatly tend to invigorate the plants and make them bloom freely.

I come now to the heat or temperature, which the Camellia requires to grow and bloom it to perfection. In this case, as in many others, extremes are to be avoided. This plant, in fact, requires *uniformity of temperature;* but our climate is so very variable that it is almost impossible completely to define any rule on the subject. In winter—say from the first of October to the first of March—I endeavor, as much as possible, to keep the temperature of the Camellia-house from 48° to 60° [Fahrenheit.] It will sometimes cross both lines; but in no case do I allow the glass to go lower than 40° or higher than 65°. In summer time, (or rather from 1st of March to 1st of October,) the thermometer seldom falls lower than temperate (60°;) but our bright summer sun will cause the glass to rise to 90° and upwards, and it cannot be avoided. Some of the Camellias suffer much from this great heat; but, as a compensation, we have flowers much more

finely variegated than we should have with a lower temperature. Such, at least, is my experience.

I keep my Camellias in the green-house all the year round. Two reasons compel me to this course: one is, that I have not a suitable place for them out of doors; the other is, that I conceive that, if taken out of the house in summer, they would be exposed to the heavy rains, and frequently receive much more water than is necessary for their health; and they would consequently be liable to lose a portion of their roots. The only inconvenience I experience in keeping them in the house, during the summer months, is their liability of being attacked by the red spider; but they can be kept free from that pest by frequent and powerful syringing.

If Camellias are kept out of doors in summer, (i. e., from 15th of June to 15th of September,) a site should be selected against a wall, hedge, or fence, (I mean on the north side,) with an *awning* to shade them from the sun the greater part of the day, say from 8 A. M. to 5 or 6 o'clock P. M. This awning could also be used to great advantage during long and heavy rains, in protecting the plants from excess of moisture when water is not needed at their roots. I have no doubt that, *with these precautions*, namely, shelter from the sun, heavy rains, and high winds, Camellias, under proper treatment, will succeed just as well, if not better, than those kept in the green-house all the time.

I ought to mention that, early in the fall, I usually *thin out* the buds of my Camellias, on such plants as have too many, leaving only *one bud on each shoot*, and that only on the most prominent ones. This gives greater vigor to those which are left, and produces flowers of greatly increased size.

When it is desirable to have the Camellia flower as early as practicable, I try to keep a gentle heat in the green-house during the autumn months, and I do not allow the temperature to fall too low, so as to check the sap, and cause the bud to become black, and sometimes hard and scale-like, so that they will not open; all of which can be avoided by proper treatment —that is, by guarding against all *extremes of temperature*, and by attending to those points respecting the *watering*, which I have already noticed. Very respectfully yours,

NOEL J. BECAR.

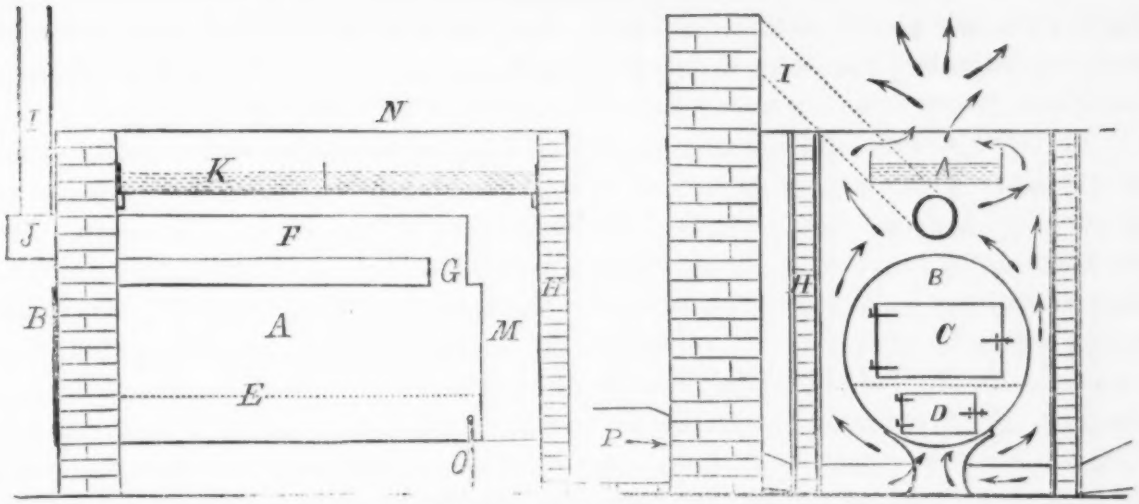
*New-York, Nov.* 3, 1848.

## A SIMPLE MODE OF HEATING GREEN-HOUSES.

BY A SUBSCRIBER, MONROE, MICHIGAN.

DEAR SIR—I wish to give you my plan of heating a green-house; and as it approaches so near the "Polmaise" method, if it were not that the principle has been adopted in this section for a considerable time, might be supposed to be only borrowed from the "Polmaise."

*Description.*—A, solid cylinder of cast iron, one-fourth of an inch thick, 20 inches in diameter, and 4 feet 4 inches in length; and for convenience in casting, the end, B B, is left open; after which, and before the same is placed in the brick work, a front of heavy sheet, or light boiler iron, is closely fitted to the same, having two doors, C and D,—one for wood, the other opening to the ash-pit. E E, the grate. F, smoke pipe, of cast iron, with an elbow, but all in one




piece, and a cement joint at G. H H, brick work, surrounding the furnace, 4 inches thick, (made tight by plastering both sides,) except the front wall, which supports the end of furnace; this is 8-inch work. I I, common stove pipe, leading to chimney at such an angle as will prevent soot from accumulating. J J, soot door for cleaning the horizontal flue or smoke pipe. K K, cast iron water tank, 20 inches wide, 4 feet 2 inches in length, and 5 inches deep, resting upon a projection in the brick work. The length of the water pan, however, is governed by the width of the air chamber at M. N N N, sheet iron slides or covers, resting upon the top of brick work, and by moving these slides, the opening for the hot air can be made of any width, or entirely closed. O, a cast iron support for the back end of stove, three-fourths of an inch thick, standing on edge, which allows the stove to expand in length or contract, without displacing any part of the work. The bottom of the air chamber is on a level with the floor of the green-house.

The stove and fixtures, placed in the middle of, and not at the end of the house. Two supply drains, P P, conduct the cold air from both ends of the house; these are made of well seasoned plank, air tight, 16 nches square, and placed directly under the plant ranges, four inches above the floor. As they approach the furnace, they are contracted in depth but increased in width, till entering the air chamber, they are nearly as wide as the *length* of the stove.

The wood work of the supply drain only reaches the brick work, which is here supported by an iron bar, with a single brick under its centre, as a support. On the inside, within the air chamber, are small piers of brick work, six inches high, extending nearly under the centre of the stove, on the top of which is placed two pieces of sheet iron, that the cold air may be conducted directly under the centre of the stove.

I think this plan, in some respects, preferable to the Polmaise. My supply drains are kept upon the surface; the air within growing warmer as it approaches the furnace, instead of getting colder, as in the Polmaise plan, by descending so far beneath the surface, and away from the influence of the heated air of the house.

If the air in the air-chamber, around the stove and its pipe, becomes much heated, as it does, it must rise if the slides, N N, are drawn apart. This calls for a new supply, which can only be furnished by the drains. Every degree of heat that can be retained in the air of the drain, as it ap-

proaches the furnace, is certainly so much saved, requiring less heat from the stove to raise it to a proper temperature. I believe it to be more simple, and cheaper in its construction. There is no expansion of any part by heat, that can in the least degree affect the permanency of the structure. There cannot the least quantity of deleterious gas escape through the brick work, (as is possible in the Polmaise,) for there is none that comes in contact with the fire. With a differently constructed stove, coal may as well be used as wood. But here, as in many parts of country, wood is much the cheapest; and as it can be used market length, or four feet long, and of almost any size, there is no expense in preparing it for the stove.

A friend of mine has suggested the propriety of covering the top of the stove, and half down its sides, with 4-inch brick work; believing it will throw out its heat with much greater regularity.

Would it not have this effect? And would there be anything lost or gained in communicating the necessary heat to this additional quantity of brick and mortar?

A Subscriber.

*Monroe, Michigan, Nov.*, 1848.

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[This appears to be a clever application of the same principle, in warming green-houses, as that called the *Polmaise*. The heat would be rendered more moderate and steady, and, therefore, be less liable to injure the plants, by having the stove partially, or wholly covered with brick work.

We think it very important that a supply of *fresh air* (from out of doors,) should also be furnished to the hot-air chamber; because, as our correspondent's apparatus is now arranged, the only supply of air is drawn from the interior of the green-house, to be warmed; as a necessary consequence, there will be a deficiency of fresh and pure air for the plants. This is easily obviated, by having another cold-air drain, communicating with the open air, with a valve or slide, so that it may be used whenever necessary. It may, indeed, always be opened with great advantage when the temperature of the house rises too high, or too rapidly. Ed.]

## A FEW WORDS ABOUT HEDGES.

BY P. W. R., NEW-YORK.

I am delighted with the Osage Orange, as a hedge plant. When I was in Ohio, a short time since, I saw several miles of this tree, in all stages of hedge growth, from plants six inches high to well grown hedges, measuring seven feet in height. Its beautiful, polished and glossy foliage, and healthy, luxuriant growth attract the eye, even at a distance. In fact, I have never seen any hedge, except one of *holly*, (which does not appear to thrive in the northern states,) so handsome, taken altogether, as the Osage Orange. It is also possessed of most efficient means of *defence*, in its long and sharp thorns; which, though they are somewhat concealed by the leaves, make themselves felt at the least approach of anything "on the attack."

It is, perhaps, yet a question, precisely how far *north* the Osage Orange will thrive, as a hedge plant,—since it comes originally from Arkansas.

I will state, however, that I have seen a neat hedge of this tree in the grounds of

John P. Cushing, Esq., near Boston. I understood, while there, that although the Osage Orange, planted out as a *tree*, is not quite hardy in the climate of Boston, yet, as a hedge, it is found to be completely so. This is, no doubt, owing to the short and well-ripened growth of each year, upon plants, so continually checked in their shoots by clipping, and by being planted so near each other as to prevent that *sappy* and redundant growth, frequent in young single specimens.

The *Buckthorn* hedges, about Boston, are also very fine,—some of them eight or ten feet high, very symmetrical, and very regularly sheared. Some of them which I saw, were about ten or twelve years old, and were as strong as a wall, so that a man might walk along on the top. This plant is so very hardy, and will grow so easily and well in all kinds of soil, high or low, wet or dry, in the open sun, or under trees, that it is very valuable.

I think justice has not been done, in your journal, to the *Privet*, or Prim, for hedges.

When a person wishes a neat division in his pleasure grounds, or wants to enclose his garden, or to make a neat low screen, the Privet is one of the best plants in the world. As it is absolutely devoid of thorns, it is not, of course, fit for a fence or outside barrier. But as an *ornamental* hedge, it is always pleasing, becoming green very early in the spring, and retaining its foliage till near midwinter.

The ease with which this plant may be propagated, or a hedge "got up," is also one of its greatest recommendations. You have only to plant a row of *cuttings*, six inches apart, in the early spring. Almost every slip will take root, and no further care is requisite, except clipping once a year. The trimmings of an old Privet hedge, of 50 feet long, taken in March or April, and planted, will set many hundred feet of new hedge. I think the neat dark green foliage of the Privet is always agreeable to the eye; and few plants are hardier, or more easily cultivated. Yours respectfully. P. W. R.

*New-York, Nov.*, 1848.

## TRANSPLANTING TREES WITH BALLS OF EARTH.

BY AN ARBORICULTURIST, PHILADELPHIA.

Sir—This is the proper season for this operation; and those of your readers who are not familiar with it, it may be well to remind that it is the most perfect and complete way of transplanting ever practiced in a northern climate.

Trees of large size may be transplanted in this mode with great success; and it is almost the only mode in which the operation can be carried on successfully, in this climate.

Many are, no doubt, somewhat acquainted with the *modus operandi* of "balling" a tree. It is, of course, undertaken in frosty weather; not so cold that your hands cannot work in the day time, but cold enough to freeze very sharply at night. You begin at some distance from the tree to open the trench, and carefully, and gradually *undermine* the roots, so as to preserve the ball of earth as entire as possible. If necessary, it may remain in this state for days,—till the weather is cold enough to freeze the ball quite firm, so that it will

bear *rolling* or lifting out of the hole without falling to pieces.

Of course you will have the holes dug, and made ready to receive the tree, beforehand, so that when you have the latter on the spot, there may be no obstacle to lowering the ball at once into its new bed.

I say "lowering;" and this leads me to remark, that a very great assistance in transplanting "balled" trees is a common *ship's block*, (or pulley,) fastened at the top of three stout sapling poles, set on the ground so as to form a triangle, or three-legged frame, in the same way as seamen and others use it for lifting weights. By bringing this pulley and frame over the tree, (the block should be one of the largest size, so as to hold a strong rope,) you may fasten the rope round the ball or trunk, and thus assist very much in lifting it out of the hole, and placing it on the sled or "stone-boat."

The operation is best and easiest performed when there is a light coat of snow on the ground; for then a very heavy tree may be carried, on a sled, with a large ball of earth, by a couple of pairs of oxen.

I have succeeded in moving *hemlocks*, (which are, I think, usually thought rather shy of transplanting,) 25 feet high, and with trunks 18 inches in circumference, with great success. They scarcely changed colour the next season, and are now in the finest condition. I am, sir, yours,

AN ARBORICULTURIST.

*Philadelphia, Nov.*, 1848.

## ON GRAFT-BUDDING—A NEW AND SUCCESSFUL MODE.

BY DR. A. H. PECK, PORT GIBSON, MISS.

A. J. DOWNING, ESQ.—*Dear Sir:* I take so much pleasure in studying your "Fruit and Fruit Trees of America," that I would gladly thank you, in person, for your labors.

In looking over your remarks on *budding and grafting*, I find that the American shield, or T budding, is preferred, and very justly too, over the European mode. Having great fondness for horticulture, I have practiced different modes a good deal; and I venture, at the present moment, to draw your attention to my method of *graft-budding*, for it partakes of the nature of both these operations.

This mode of budding, or grafting, differs from others, in being performed only when the bark peels. It is performed, so far as regards the stock and the incisions made, in the same way as common, or T budding, bearing in mind the relative size of the scion and the stock. It may be performed as long as the bark will peel easily, and you can get *crown* scions; (scions on which the terminal bud is formed.)

Take the scions from a bearing tree, if you desire fruit speedily. And here I will remark, that the crown (terminal) end of the scion is far preferable for this mode to the lower, or middle part, which is recommended in all other forms of grafting. If the middle part of the scion is used, and it takes, it is very apt to lay dormant, and finally, the next spring, disappoint your expectations by dying. The crown scion almost invariably takes; it may lay dormant, but seldom fails to bud forth in the spring.

Having the scion in readiness, make the T incision in the bark of the stock; but open only the *upper* edges of the bark with

your budding knife. Hold the scion in your left hand by the upper or crown end. With your knife make a clean sloping cut at the lower end, of about an inch in length, leaving a thin lower edge, with the bark projecting a little over the wound; (two or three buds besides the crown bud should be left above the slope.) Insert this prepared lower end of the scion into the incision, press it carefully down—it will separate the bark as it goes—until it reaches the lowest point of the T incision; the bark, embracing it tightly, will add to its support. Now bind the wounded part of the stock, from below upwards, with a coarse woolen yarn; if the stock is over three inches in diameter, a double ligature is preferable. The after treatment, (heading down the stock, &c.,) is the same as in budding, with this exception; if all the shoots put forth, trim down to one or more, as you please. The growth of the first season may be three feet; but owing to its tendency to reassume the true shape, that is, to form at once a branching head, it is retarded in height, unless the side shoots are shortened.

Graft-budding appears to me to have advantages over all other forms. I find it more certain, as well as more easily performed, than any mode of grafting; and, at least in this climate, it may be practiced seven months of the year, or whenever the bark will peel, and you can get scions with crown buds. If it fails, it does not render unsightly the appearance of your tree, as in cleft-grafting. It can be performed in one minute of time, and without wax or grafting clay.

It is generally adopted by those to whom I have imparted it, in preference to any other method. Indeed, some of my amateur friends will take any *spur* and insert it successfully in this style. With much esteem, yours, A. H. Peck, M. D.

*Port Gibson, Miss., Oct. 7th, 1848.*

P. S. I wish I could hand you a ripe pomegranate, now before me, six inches (either way,) in diameter.

## CORRESPONDENCE ON THE BLACK WARTS OF THE PLUM TREE.

BY F. WESTON, OF SANDY HILL, N. Y., AND PROFESSOR HARRIS, OF CAMBRIDGE, MASS.

The following letter, addressed to us by one of our correspondents, and covering a small branch which had been attacked by some insect, we forwarded, with its contents, to Dr. Harris, the well known entomologist.

The writer, Mr. Weston, conceives that the black warts or knots, so troublesome to plum cultivators in some parts of the country, are the result of insect attacks.

It will be seen that Prof. Harris does not incline to this opinion. We are, also, led to think it more probable, from recent observations, that these warts are caused by a disease of the sap vessels, and have found a wash of *copperas-water* a pretty effectual remedy, after cutting out the diseased parts. Ed.

A. J. Downing, Esq.—*Dear Sir:* I take the liberty of enclosing to you a small portion of a branch of a plum tree, in which is distinctly to be seen the insect which causes "the knots," so destructive to that tree in some parts of the country.

I do it for the purpose of furnishing to you the evidence, upon which you can settle the question which has for a long time been discussed by pomologists, but never has,

(unless very lately,) been determined to the entire satisfaction of all.

The tree, from which the enclosed piece was taken, is young, and was brought last spring from one of the nurseries at Newburgh. The variety is "Smith's Orleans." It may be not unimportant, in this connection, to state that "the warts," or "canker," made its appearance in this garden some few years since, attacking first one tree and then another; no remedy having been applied, from the supposition that it was "a disease," and not to be cured, until finally every plum tree on the premises perished; since which time, no trees have been growing here or in the immediate neighborhood.

I have just now commenced the cultivation anew, with the trees above spoken of, and have paid pretty close attention to them through the summer. A few days since, I discovered upon a small branch of a tree, of the "Bleecker's Gage," a small exudation of gum; and, upon examination, I found it to be an embryo "wart." I cut it off, at once, and burned it. Yesterday I discovered the enclosed,—the deposit of gum being as large as the half of a Marrowfat Pea, perhaps. I determined to examine it for myself, without any very great hopes, however, of being able to make a discovery of that which had so long escaped the observation of some, at least, of our most scientific pomologists.

Upon removing the gum, and opening the branch cut off, I was astonished to see clearly and distinctly the part affected, filled with small white grubs, which you will be able to see, unless they shall have perished before this reaches you. It appears to me highly probable, that they remain two years in the tree before they undergo their final transformation; as it seems impossible that they should be able, in the brief space of mild weather of this season, and the spring months of the next, to produce those immense excrescences which appear finally upon the trees attacked. But of this fact, you are the best judge.

I hope you will pardon me for troubling you, if you shall have, before this, made the discovery satisfactorily; and if not, the importance of the subject will, I trust, be a sufficient apology. I am, sir, with great respect, your ob't serv't,

FRED'K WESTON.

*Sandy Hill, N. Y., 14th Oct.*, 1848.

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A. J. DOWNING, ESQ.—*Dear Sir:* Agreeably to your request, I have examined the plum tree twig, enclosed in your letter of the 20th instant. The piece is nearly one quarter of an inch in diameter. There is a wound on the surface, one inch long, in a longitudinal direction, caused by a series of punctures, passing obliquely downwards and penetrating the pith. By splitting the twig, I have ascertained that these punctures or perforations were twenty-three in number, arranged in two contiguous rows, and alternating with each other; there being twelve perforations in the one, and eleven in the other row. Each of these perforations contained a cream-coloured egg, of a cylindrical form, rounded at the ends, and about one-tenth of an inch long. Many of the eggs were destroyed in splitting open the twig; but several of them still remain within the holes, drilled for their reception. All of them appear to have perished without hatching; perhaps because the twig was too soon cut from the tree. The whole surface of the twig, around the wound, is covered with a glazing, like the white of an egg. The drilling of the holes has, in a singular manner, loosened and furred up the fibres of the wood, portions of which project around the orifices, where, however, they

are more or less covered and concealed by the glazing before named.

All this is, doubtless, the work of one insect—a female *Cicada;* but whether of the species commonly called "the seventeen-year locust," or of some other species, is unknown to me; and I can only add, that the perforations and eggs are similar to those that I have seen produced by the former insect.

You are aware, perhaps, that the Cicada grubs, as soon as they are hatched, drop voluntarily from the trees, burrow in the ground, and attach themselves, by their little beaks, to the roots, upon the juices of which they subsist. Miss Morris, of Germantown, Penn., has made some interesting observations on their habits in the grub state, [see Hort., vol II, p. 15,] and finds them to be very injurious to the trees whose roots they attack. You will find a pretty full account of the *Cicada septemdecim* in my Treatise on Insects injurious to vegetation.

Whether the punctures of this or of any other species of *Cicada* will produce the warty excrescences that disfigure the plum tree, must be determined by further observation. Insects have repeatedly been found in the plum tree warts; but *not invariably*, according to my experience. The plum weevil often deposits in them, and occasionally also the peach tree borer, as well as another and smaller species of *Ægeria.* Nevertheless, I incline to the opinion, maintained by the late Dr. Burnett, that the warts are originally the result of disease. It is here found that, by cutting them off when small, and washing the wound with strong brine, the disease will be arrested, and the wound will finally heal.

I enclose the specimen, with the letter of your correspondent, and remain,

My dear sir, very truly,
Your friend and servant,
Thaddeus Wm. Harris.

*Cambridge, Mass., Oct. 25, 1848.*

## A VISIT TO THE BEST FRENCH VINEYARDS.

BY H. W. SARGENT, OF WODENETHE, N. Y.

The following account of the vineyards of Médoc, written by a neighbor and friend, now abroad, and received by a late steamer, will greatly interest many of our readers now engaged in the culture of the vine, especially on the banks of the Ohio.

It is, we believe, pretty well established now, that the peculiar adaptation of these rocky and apparently sterile soils to the production of fine wine, is owing to their containing an abundance of the inorganic elements, (especially lime and potash,) so essential to the perfection of the grape. Foreign cultivators, however, so far as we know, have never yet endeavored to improve ordinary vineyard soils by the necessary specific mineral manures. We hope our intelligent cultivators at the west will turn their attention to this. Ed.

I wrote you in the accompanying letter, that we had visited pretty thoroughly the wine districts, where I examined carefully the soil, the vines, the grapes,—in fact, lived in the atmosphere for some time, and the following is the result of my inquiries, assisted in the statistical parts by some French works on the vine.

In the first place, I would premise that I

think the distinction of terms is not generally understood, in America, as regards the generic name of these wines. For instance, *Médoc*, which, if I am not mistaken, is usually regarded as one variety only, of the great class, *Claret*,—is, in fact, the name which comprehends all the Bordeaux varieties, as much as Madeira, or Xeres, covers all the different varieties of their class.

*Médoc* is, in fact, a long tongue of land, running north from Bordeaux, between the sea on one hand, the Garronne on the other, and the River Gironde on the third, and is called Médoc, (quasi *medio aquæ*,) because surrounded by water; it is nowhere over 1 to 2 miles wide, and elevated some 50 feet above the river; it is, in fact, a bank of gravel, entirely planted with vines, forming, perhaps, the most precious vineyards in the world.

The general character of the soil is a mere light gravel. In fact, you would be astonished to see the soil where the finest grapes grow. It appears nothing but a collection of round white pebbles, the size of an egg, mixed with sand. It really seems that the poorer the soil the better the wine; for the finer qualities are not produced from the most luxuriant vines, but, on the contrary, from those of the most stunted growth; in fact, from a soil so poor and stony that even weeds disdain to grow in it. This is, however, I think, a truth well known to grape growers in our own country. But why never practiced upon, I do not know. There seems to be something very congenial to the vine in the prolonged warmth, derived from soil of this character; for, as the peasants very quaintly say, "it works as well by night as by day"—the stones retaining the heat long after the decline of day.

What makes Médoc peculiarly interesting is, that the soil from which these delicious wines are produced, is not a natural one, but, like the lava soil on Mount Vesuvius, which produces the famous *lachryma Christi*, owes its origin to some natural convulsion. In fact, at Médoc the entire ridge is evidently the débris of the Pyrenees, brought down by the annual overflowing of the Garronne, and the other mountain streams, which for ages made their yearly deposit of rubbish; for it really amounts to little else. Indeed, at 2 or 3 feet below the surface, the soil is so close and hard that it is forced to be broken up by a pick, otherwise the vine could not grow; as this mass, which they call "*alios*," would be perfectly impenetrable to the fibres.

In Burgundy and Champagne, the vines are almost exclusively trained to single stakes, not over 3 feet high, or more than 2 feet apart. But in Médoc, I observed they were generally trained to rude espaliers, which were supported by uprights, certainly not over 1½ to 2 feet high; consequently, the entire vine receives the reflected heat from the soil. Manure, they told me, is never used; because, they said, it destroys the fine flavor of the grapes, and they seemed to consider it as injurious to the vine, as excessive or standing water was to the roots. A top dressing of light soil is sometimes given, simply to cover the roots, which are, strange to say, laid bare four times a year by the plough, drawn by oxen. The latter, with astonishing care, seem to have sufficient instinct to avoid treading on the exposed fibres, although in no cases are the vines over 2 feet apart.

They do not, usually, allow the vine to bear before five years old,—at least, not much; but, once commenced, they are expected to do duty annually for, sometimes, over 200 *years*, especially when they find a congenial soil, in which case their roots (*pivoter*) insinuate themselves 40 or 50

feet. The wines are classed, according to their excellence, into (*crus*) growths; and only a very small portion of Médoc is capable of producing "*premiers crus.*" Indeed, here, as upon Prince METTERNICH's estate, at Johannisbergher, the vine is equally capricious; and you will find the finest wines growing within six inches of the most degenerate, although it is impossible to discover the least difference in soil or cultivation.

The following is a list of the wine grown in Médoc, with the average quantity of each season. The tun contains four hogsheads, called *barriques.*

*1st Growth.*

Chateaux Margaux, 140 to 160 tuns.
do Lafitte, 120 do
do Latour, 120 do
Haut Brion, 60 to 80 tuns.

*2d Growth.*

Mouton, (Lafitte,) 120 to 146 tuns.
Leoville, 145 to 186 tons; (the best of the St. Julian.)
Rauzan, (Margaux,) 75 to 95 tuns.

Then come *La Rose, Pichon, Longuerille, Durport, Lascombe,* &c.—in all, 700 to 800 tuns. After these come the 3d, 4th, 5th *crus*, which are produced in the vicinity of the first rate vineyards, but without partaking of their excellence. All the best year's products are exported to England, the 2d best to Holland, and the inferior retained in France. This is so well understood, that the proprietor of the vineyard *La Rose* used to hoist the English flag on his house, in good years, the Dutch in middling, and the French in inferior.

England consumes more than one-half of the "*premiers crus,*" and very little of inferior sorts. Russia takes a good deal, and Paris a little of the best. Holland consumes most of the second quality, and the third, and *vins ordinaires*, are chiefly used in France.

The impression that prevails in our country, that these light French wines are more or less adulterated, or mixed with brandy, is erroneous; it would spoil them. They are sometimes fortified with Hermitage, or the stronger Rhine wines. The great characteristic of the Bordeaux wines, is their *bouquet* [aroma,] which will penetrate through their *fortifications*, unless improperly mixed.

The usual price of a genuine wine of the "*premiers crus,*" is £50 (per hogshead;) duty, carriage, bottling, &c., run it up to £80,—about 70 shillings sterling per doz. The entire vintage of *Chateau Margaux* has been sold on the spot for 1000 francs, ($200,) per hogshead. The annual produce of Médoc, each good year, is from 150,000 to 170,000 hogsheads: of which, perhaps, 6,000 go to England.

It is a very pretty excursion down the river from Bordeaux, to visit the principal vineyards, and may be made in a steamer in six or seven hours; and in September, especially, it is really a very gay and charming sight; for then, Médoc presents a scene of bustle and rejoicing. The proprietors, with their families and friends, generally come out from Bordeaux to superintend and have a frolic. *Vignerons* pour in from all sides, like the Irish harvesters into England, and busy crowds of men, women, and children, dance and sing, and work in the vineyards from morning to night. All mouldy, defective, or unripe fruit is carefully picked off, and every road is thronged with carts, loaded with tubs, filled with "good measure, pressed down, shaken together, and running over," which the patient oxen are dragging to the press-house.

The latter, like our cider mills in New-England, is usually in some out-house, like a barn, and always presents a scene of

great merriment; for upon a square wooden trough stand four or five men, with bare and juice-stained legs, dancing and treading out the grapes *to the music of a violin;* the latter instrument forming an essential part of every well ordered vineyard. As these grapes are all purple, it is a very odd sight to see these dancers performing a fandango, or *pas de quatre*, stained as they are from head to foot, in the blood of the grape.

The next process is (with an instrument called *dérapoir*,) that of stripping the broken skins and grapes from the stalk, and pouring the juice into vats to ferment. The skins rise to the top, and the wine, after fermentation. is drawn off from below, in the same way as in GRAND DUKE OF TUSCANY's dairy, near Florence, where the milk is drawn away from beneath *without the cream knowing it*, and not skimmed off from above as with us.

About 20 miles from Bordeaux we passed, at a distance, the Chateau Margaux,—the handsomest in Médoc. It is built somewhat like an Italian villa, and belongs to the heirs of the banker, AGUADO. It is unhealthy, however, and rarely inhabited. The Margaux Grape is small, and, to me, its flavor is positively disagreeable. The village of Margaux is a pretty, picturesque little place, with its white villas, green hedges, and trellised vines.

After passing Blaye, where the DUCHESSE DE BERRI was confined in 1833, in an old castle, you come to Becheville, where there is a nice chateau, belonging to M. GUESTIER, the greatest wine merchant in France. Here commence and finish, within six miles, the most celebrated vineyards of Médoc. *Chateau Leoville*, (producing the best second growth,) and also *la Rose*, the *Chateau Latour*, in the parish of St. Lambert, one and a half miles off. This last estate or vineyard does not exceed 330 acres, and was sold, not long since, for £60,000, ($300,000.)

I think the next and last vineyard is *Chateau Lafitte*, belonging to Sir SAMUEL SCOTT. It is small, and makes from 300 to 400 hogsheads. All this is a very interesting journey to one, curious in this most ancient agricultural occupation, or fond of these pure and excellent French wines.

I think you would be struck with the *severe pruning* which the vines receive every year, and the constant "stopping" during the season. The vineyards themselves, partly from the very careful culture, but also from the very poor soil, are entirely free from weeds; and you rarely see a straggling or redundant vine. Indeed, they are always full of women and children, who pinch off a pushing shoot without the slightest compunction.

I will add, before closing, a word on the present degenerate state of the *fruit market* of Europe. I assure you it is impossible to procure, on the continent, such a display of fruit as you or I often have on our tables at home. Mr. L—— (of Boston,) and myself have searched all the markets, as well as *Vérgs*, *Les trois Freres*, *Café de Paris*, etc.; but we find no pears, except *Duchesse d'Angouleme* and *Brown Beurré*,—magnificent, certainly, in size and fairness, but deficient in flavor. There are no grapes but Chasselas (*de Fontainbleau;*) these only average, in size of bunch and berry, the best of UNDERHILL's Isabellas. The climate being sufficiently mild to admit of these being grown out of doors, nobody thinks of forced grapes. Even the late king had not a vinery, now a comparatively common luxury in the United States. Indeed, about Paris, one sees no forced fruit. Everything is grown by field or garden culture. Yours sincerely, H. W. S.

*Paris, 27th October*, 1848.

## NOTES ON FORCING PLUMS.

TRANSLATED FROM THE GERMAN, BY J. W. KNEVELS, FISHKILL LANDING, N. Y.

THE following account, translated from *Liegel's Anlietung zur Kentricss der Pflaumen*, a standard German work on Pomology, may not attract many of our readers on the Hudson, where the finest plums are so easily grown, but it is interesting as illustrating the fruit-culture of Germany. Our intelligent fruit-growing readers will not, however, allow to escape them the hint thrown out by LIEGEL as to the admirable effects of *brewers' grains*, applied as a top-dressing to the plum. It is quite new to us, and deserves a trial in open culture.—ED.

Forcing is the term we apply to the hastening the maturity of fruits, by artificial heat. This is effected by placing trees in pots, during winter or spring, in heated apartments; or covering trees on walls, by sashes, ("with or without flues;") or, lastly, by planting them in glazed structures. The latter is the most usual and profitable mode.

Forcing trees, however, requires a great deal of attention, industry and experience, so as not to give too little or too much heat, or keep them too moist or too dry. In general, the same rules apply to forcing plums, as in forcing other fruits. During their blossoming, the heat must not be sufficient to sink below 6 to 8 degrees, (Reaumur,) nor to rise above 15 to 18 degrees; only towards the time of ripening, should any higher temperature be applied. At this period, (while in flower,) be careful that they do not receive too much water; especially avoid giving a great deal at once, otherwise not only the blossoms, but even the fruit itself, in an advanced stage, will drop. You should therefore give water every day, according to circumstances, but never much at a time, for too much moisture will produce a yellowness of the leaves, and mouldiness at the roots, and finally the death of the tree. When the leaves and branches of a tree standing in the sun, begin to droop, this is a sign that it has been kept too dry. Notwithstanding, be not too parsimonious with your watering, for the Plum bears moisture better than any other fruit tree, and you may therefore give it a plentiful showering, in the morning of bright summer days.

If your trees are in tubs or pots, it is requisite to give them proper nutriment. Brewers' grains (*malz-keirn*) are best for the purpose, as the experience of many years has taught me. It is a strong and lasting manure, and gives large, perfect, and splendid fruit. At first, when you commence forcing, take a large handful of these grains and scatter it over the surface of the earth in your tubs; it will soon form a sort of crust, which must be broken up. In the course of two or three months it will have generally disappeared, mingling in its decay with the soil, when another handful may be added. It is hardly conceivable what great effect so trifling a quantity has upon the fruit. Your trees, in pots, will send out shoots such as are seldom seen, even from trees in the open ground, and the fruit will also attain a state of high perfection.

The question now presents itself, "What varieties shall we select for forcing?" Since forcing fruits, in Germany, is generally practiced only in the establishments of the nobility and gentry, and to add to the splendor of the table, such plants are to be chosen especially as are early, large, and of varied tints; and as there are in a forcing-house no frosty nights, no drench-

ing showers, no excessive heat or drouth, to injure the blossoming or setting of the fruit, they consequently bear in huge clusters, presenting a charming scene to every beholder.

The *Red Imperial*, [Red Magnum Bonum] called also the "Early Forcing," is found in every forcing-house, being easily grown and bearing the knife well. The fruit is large, prune-like, of a reddish-blue, and good quality. The *Imperial Violette* is also large and handsome, of a reddish-blue, ripening rather later than the former, but surpassing it in flavor; they both bear every operation in forcing kindly, and the fruit hangs on well. The *Yellow Early Prune* is earlier, however, than either: bears in superabundance, in huge clusters, and the fruit is a real ornament to the fruit-basket. The "Monsieur" [Orleans] is still earlier: a round, blue, rather small, but good fruit. But the *Johannes Pflaume*, Prune de St. Jean, [Jaune Hative ?—Ed.] is best of all adapted to forcing; being one of the earliest plums bearing in quantities, patient of pruning, and not at all sensitive to changes of temperature. Not so *La Royale de Tours*, an early, large, round, violet-blue, and capital fruit. The *Normand Perdrigon* deserves forcing, particularly on account of its beauty: it bears abundantly, and is by no means tender, but ripens late. The *Red Prune* may also be forced, as it repays our attention, for the beauty of its colours. The *Violet Perdrigon*, and the *Variegated Perdrigon* are extremely handsome, and very good plums. The *Yellow Mirabelle* and the *True Early Prune* are something later, but very excellent fruits. The last named deserves one of the best places in your house. All plums, in fact, may be pruned. The prunes, however, bear the knife better than the true plums, which in general throw out strong, thick, pithy summer shoots.

These trees should not be forced two years in succession; nor is it advisable to force trees just potted, as they are very apt to drop their fruit. One should, therefore, always have on hand a supply of trees in pots a year or two in advance, and such as show plenty of fruit-buds.

The cultivation of plum trees *in pots* in the open air, is also a source of enjoyment, as they blossom readily. But the blossoms should be protected from rain and cold nights, of which they are very intolerant, and from which they must be protected if you expect gratification from their fruiting. I have set tall stakes alongside the tree, over which were thrown rafters to support shutters, which rendered good service the whole season, since the rain occasions the falling of the fruit, prematurely cracks them, and also renders them vapid and tasteless. These covers are taken off in fine weather. They are indispensable to all fruit trees, and without them you can never be quite successful and certain of enjoying a fine crop. Instead of wooden covers, straw or rush mats, or canvass awning may be made use of. Of course the laying on and taking off these covers, throughout the year, occasion a good deal of trouble, but one is well rewarded for the pains. Consider what infinite toil and attention the florist expends on his favorites, which only gratify the eye and olfactory nerves; whilst fine fruit, together with these, excites the palate, also, most exquisitely. Should you have no fit place under shelter, to set your pots during winter, they may be drawn out and laid in, in the open ground. In the spring they are to be repotted; first shortening in their roots, shaking off the old and adding new, rich earth, which does not impede their fruiting, as the stock of the root adheres to a *ball* of earth.

*Fishkill Landing, N. Y., Nov.* 1848.

## PRACTICAL HINTS TO AMATEURS.

BY "AN OLD DIGGER."

GRAFTS may be cut now, as well as later in the winter, if more convenient to you. Keep them in a cool place, half-buried in earth or sand, till you want them. If not wanted till spring, bury them out of doors, with only a couple of inches of the points exposed, and throw two or three inches of litter over them.

Strawberry beds will produce good crops in open winter quarters, in the Northern States; but they will bear much better ones, and much larger fruit, if you cover them lightly with straw, salt-hay, or stable litter; otherwise you are likely enough, in stiff soils, to find half the plants dead or injured by being "thrown out in the spring.

You may transplant, all winter, when the ground is not frozen—only take care not to expose the roots to frost while not covered with soil. In winter-planting, it is best to pile up a mound of earth 6 or 8 inches around the trunk of the tree. This keeps it steady, and protects it, partially, against severe frost.

If you are very anxious to be cheated, send to some nursery that modestly informs the public of its immense superiority over every other establishment in the world; or that offers hundreds of varieties of "splendid, pre-eminent, and delicious" fruits, not to be found elsewhere—or that challenges competition for accuracy. Where there is so much modesty in boasting, there must be great diffidence in sending you anything but what the dealer knows to be first rate; and you must be aware, yourself, that there are now *hundreds* of *first rate* fruits. If you send to a nursery for a new variety of tree or plant, don't expect to see the plant as high as your head, or the tree fit to bear a bushel of fruit. Be content if it is healthy, has a good root, and is a foot high. People "in the trade," can't afford to send you large trees, full of grafts or cuttings, of sorts which are scarce as guineas, and which have not been long enough in the country to enable them to get more than one year's growth. If you want "big trees," order the good old standard sorts.

When a tree brought from a distance has been a long while out of the ground, and looks quite dried up, don't plunge it into a tub of water; that would be well-nigh as fatal as giving a gallon at a single drink, to a man nearly dead of thirst. *Moisten* the roots, and after shortening the branches severely, bury the *whole tree* in the ground for three or four days.

When you prune a small branch of a tree, always see that a *bud* is left opposite the cut; this will help it to heal over quickly: and you will assist the matter still more, by making the cut always a *sloping* one.

If you are obliged to plant trees in the rich but worn-out soil of an old garden, and you have not time nor means enough to cart away part of the old soil and replace it with new, you can renew its fertility by throwing a part of it up in heaps, mixing it with brush, faggots, saw-dust, or any sort of cheap fuel, and burning it.

Don't let insects of various kinds overrun your orchard or garden, and then lazily fold your arms and say, "it's no use, this trying to raise things, now that so many vermin are about." Spend three days, industriously, in the early stage of the matter, in putting down the rascals, and then look around you and see if a little industry is not better than grumbling.

If you want early vegetables, set your-

self, in winter, about making some boxes to protect them. A few cheap boxes, a foot square, with a pane of glass in the top, to put over tender things at night, will cost you but a trifle, and will give you ten days start of the open ground.

To have good currants, gooseberries, or raspberries, the old plants should be dug up at the end of three or four good crops, and their places supplied by young ones. If you plant a few cuttings of the two former, as you should do, every spring, you will always have a supply of fresh plants ready at all times: always cut out all the eyes (buds) of a cutting, on that part which goes in the ground—otherwise you will be troubled by their coming up, year after year, in the form of *suckers*.

If you have a tree that grows "apace," but won't bear, dig a tench round it, and cut off a third of the roots. This will check its growth, and set it about making fruit-buds.

Never buy fruit trees in the "market-places," of unknown venders, who have no character to lose. You cannot tell by "examining the article," whether they cheat you or not; and you get your tree at half price, only to wish, when it comes to bear, that you had gone to an honest dealer and paid ten times as much, for something worth planting. "Hog-Peach" trees are dearer at a penny, than "George the Fourths" at a dollar.

If you don't love flowers yourself, don't quarrel with those who do. It is a defect in your nature which you ought to be sorry for, rather than abuse those who are more gifted. Of what possible "*use*" is the *rainbow*, we should like to know? And yet a wiser than you did not think the earth complete without it.

Do not grudge the cost and labor necessary to plant a few of the best shade-trees round your house; and if you have any doubts about what to plant, stick in an elm. There are few trees in the world finer than a fine sweeping elm; and two or three of them will give even a common-looking dwelling a look of dignity. If you plant fruit trees, for shade, they are likely to be broken to pieces for the fruit, and they grow unsightly by the time that forest trees grow spreading and umbrageous.

There are very few men whose friends build so fair a monument to their memory, as they can raise with their own hands, by planting an elm or a maple where it can grow for a century, to be an ornament to the country.

Don't be afraid to clip hedges, or cut-back young trees, when you are planting them. You gain more growth than you lose, though you may not be able to comprehend it till you have seen it with your own eyes.

Never work your ground in wet weather if you can avoid it, as it makes it clod-like and compact by forcing the air out. And ridge up your kitchen garden ground before winter, so as to expose as much surface as possible to the action of the frost.

Never lose an opportunity of getting *sods* from the corners of old pastures, or the breaking up of commons or meadows, where they can be spared. Placed in heaps, and rotted, they make excellent mould for tender plants or trees; placed in a pile and burned, they form the best fertilizer for roses and rare flowering plants.

Send a man about your neighborhood to collect all the bones that are thrown away as useless by persons ignorant of their value. Put them in a large pot and pour sulphuric acid and water over them, and they will all turn to paste, and finally to powder. This is the best possible manure for pear trees and grape vines.

## DESIGN FOR A SWISS COTTAGE.

Our frontispiece for this month, presents a view of an exceedingly pretty Swiss cottage, designed by Mr. Penchard, architect, Albany.

It is one of a number of ornamental cottages, erected by E. P. Prentice, Esq., of Mount Hope, near Albany, and which now not only ornament a portion of his estate, but form, with the grounds attached to them, exceedingly tasteful and agreeable residences for several gentlemen who now occupy them.

The present design shows how the picturesque, and somewhat wild character of the Swiss *chalêt*, may be adapted to our cottage requirements. While the most agreeable features of this style of building are preserved, the roof projected upon bold brackets, the galleries, the coped chimneys, etc., the whole has a domestic and habitable air, and affords a most convenient and comfortable residence for a family of moderate size.

An inspection of the plan of the principal floor, will show the accommodation of this portion of the house. It is one well calculated for cottage house keeping, where the arrangement should be somewhat compact, so as to be easily governed by the eye of the mistress. The department designed as "kitchen," on this floor, might perhaps more properly be called "dining room," since there is another kitchen in the basement beneath it.

The second, or chamber floor, contains 4 bed-rooms, most snugly and ingeniously arranged.

It will be seen that the exterior of this cottage is covered with *shingles*, the lower ends of which are cut before using them, so that they form a pleasing pattern. They have been laid-on over a rough weather boarding, on which was fitted a coating of tar-paper, so as to make a warm and dry house; and are much more picturesque in effect than planed boards or "siding."

To the amateur of the *cottage ornée*, this is a highly interesting specimen, and will well repay a visit. Mr. Prentice deserves much credit for the various examples of ornamental cottages, which he has erected in the neighborhood of a city where rural architecture, of a tasteful kind, has been much neglected.

## FOREIGN NOTICES.

Use of Young Melons.—I saw, a few days since, at one of our best market gardeners, of the *Faubourg Saint Antoine*, baskets filled with young melons, chiefly the imperfect aftergrowth of the vines. These fruits, which are of different sizes, from that of a hen's egg to that of an orange, are usually thought of no value; the smallest are not used at all, and the largest are generally placed by the children of the market garden, in the corner of a window frame until they become a little yellow, and are afterwards sold for a few cents to children, who eat them raw, without, I suppose, any great pleasure to the palate, or any good to the stomach.

These young melons, however, as well as those which do not arrive at maturity in the autumn, are a most wholesome and delicate food, when eaten *cooked*, and prepared in the same way as cucumbers. [The French cook the cucumber much more than we do. Ed.] They are, indeed, far preferable to these last, not having the after-taste, which is so disagreeable to many persons. We have found them more delicate in flavor than the vegetable marrow, even when the latter is used, as in Eng-

land, when only half grown. If the use of this vegetable were fully known, it is probable that the gardeners would allow all the small ones to reach the size of an orange; their vines would be less exhausted, and they might realize from them an additional profit of some importance. I should even be disposed to think that, as the culture of the small green cucumber has been undertaken solely for the purpose of pickling, so several vigorous kinds of melon might be cultivated advantageously, in a simple manner, with a view to this new production. It is only necessary that it should be known, and this might easily be accomplished, if our market gardeners would take some of the vegetable to any well known *restaurateurs*, and engage them to offer them to their customers. *Revue Horticole.*

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Changes of Weather indicated by Animals.—The common house spider, on the approach of fine weather, puts out its head and stretches its legs out of its hole; and this the farther, the longer the fine weather will continue. Against bad weather it retires farther back, and before more tempestuous weather it turns quite round, showing nothing but its hinder parts to the observer; thus acquainting him with the approaching storm. At the commencement of fine weather, the web with which it surrounds its corner is but of moderate extent; if the fine weather is to be lasting it enlarges it two or three inches; and if it do this several times consecutively, we may be certain that the weather will continue fine for some days. In winter they are as certain prognosticators of approaching cold. If frost and snow be coming on, they either seize upon webs already made, in which case obstinate battles often ensue, or they make new ones, and labor diligently at them.

If animals show signs of fear and uneasiness while the weather is very calm and close, it is almost certain that a storm will ensue. Rain may be foretold from the actions of various animals, as follows: When birds are seen more employed than usual in searching among their feathers for insects, which, on account of the *unusual currents of electricity* in the atmosphere, torment them. When sea-gulls, and other aquatic fowls, particularly geese, make a greater noise than usual. When swallows fly low, and seem to skim the surface of the earth. When pigeons return to the pigeon-house before accustomed time. When certain fish, such as porpoise, sport at the surface of the water. When bees do not quit their hives, or fly only to a short distance. When sheep bound in an extraordinary manner, and push each other with their heads. When asses shake their ears, or are very much stung by flies. When flies and gnats sting more severely and are more troublesome than usual. When a great number of worms issue from the earth. When frogs croak more than usual. When cats rub their heads with their fore paws, and lick the rest of their bodies with their tongues. When foxes and wolves howl violently. When ants quit their labor and conceal themselves in the earth. When oxen, lying together, frequently raise their heads, and lick each others's muzzles. When cocks crow before their usual hour. When domestic fowls flock together and squeeze themselves into the dust. When toads are heard crying in elevated places. *Glenny's Almanac.*

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The Necessity of attending to all Seedling Crops.—Nearly all our new vegetables, and many other new and good subjects, have been discovered by accident. How many more, then, may have escaped than have been noticed? Acres of peas, cabbages, and other subjects, have been sown, planted, cut, and marketed, without so much as a single inquiring inspection as to their claims to notice on account of novelty. Probably some of the finest and most valuable improvements might have been discovered, had they been inspected at those critical periods which show off their qualities to the best advantage. But large growers look only to the general complexion of fields and large plots; they look to the general bloom, the general condition, and judge by the bulk as to the season for marketing. Probably, had the peas been examined at the proper time, there might have been one in flower a fortnight before the rest. Perhaps, if generally examined when in pod, before gathering, there might have been some as large again, or as long again, or half the height, or double the height of the rest, sufficiently distinct to be worth notice and marking, and growing separately another season. Perhaps among cabbages there might have been one more hearted, and ready for market a fortnight before the rest; a larger or smaller, or in some way distinct from the rest—for this has been the way new things have been found; but as they have been found without looking for, many of more importance may have been lost, because they were not seen, and went to market among the rest. When we consider the value of a new and good subject, we think it would pay any grower to pay a visit of discovery; not that he need go up and down every row of peas and cabbages, but he might go up and down every twentieth row, and cast his eyes right and left, to see if any one subject differed materially from the rest; to observe if colour, form, habit, or other striking difference distinguished any plant within sight; and if so, to mark it with a bush, or stick, or a tie of some kind, that it may be left standing when the rest are gone. In all the cabbage tribe this is very important, because the whole family is apt to sport; and it is these sports that have produced us so many excellent varieties, from the common ragged jack to the finest Brussels sprouts. Besides, there are so many good points wanting. Hardiness in the brocoli tribe and the cauliflower—earliness, lateness, size, flavor, beauty, colour,—in short, there is no end or limit to the varieties there is room for in the Brassica family; and much of which that is desirable may have existed and been overlooked, and lost again, all for want of timely inspection. Those who set to work to obtain new varieties by crossing, are quite out of this range of observation; it does not apply to them, for they look anxiously enough for the result of their labors; but many a really great improvement might have been discovered in the midst of things grown in the ordinary way; and without any such motive, we know that

a pea has been accidentally seen in a field of many acres with a flower larger or smaller, or earlier or later, than the rest; that it has been marked, found different, perhaps better, perhaps worse, than the rest, but at all events different; it has been marked, and all the produce saved and sown by itself. It has proved better, has been named, highly spoken of, and sold out at a large price; and but for an accident it would have shared the fate of the rest, been picked and marketed green, been eaten and destroyed. It is impossible to say what may not have been attained had all that has been raised new been saved, instead of going as the rest have gone, and never been heard of. We hope there will be a little more attention paid by market gardeners, for they are as much interested as any body, and have more opportunities than any other class of men. *Hort. Magazine.*

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The Sunflower.—Among the old-fashioned subjects that seem pretty well banished from modern gardens, the sunflower may be placed; yet the value of that plant is scarcely known. It is true that the same qualities are possessed by other plants, and this, in a great measure, prevents the development of the properties which belong to the subject of our notice; but they ought not to be lost sight of, for there may be circumstances under which its whole value may be appreciated. Let us consider first, then, the uses to which the plant and its parts may be applied. First, then, it yields abundance of seed, which is equal to any, if not superior to most food for poultry. Secondly, the seed yields abundance of oil, and the oil-cake is food for cattle. Third, the plant is full of very strong fibre, capable of being worked into coarse materials cheaper than any other fibre we are acquainted with. These points are well worth the consideration of emigrants, who should on no account neglect to take seed with them, for they are likely to grow well under circumstances unfavorable to many other plants. It is one of those subjects which will grow anywhere, and produce a crop. There may be differences between light and heavy crops, according to the culture, but there will always be a crop, even on land that would bring nothing else in; at any rate, very little else. To grow sunflowers in perfection, sow thinly all over the surface in the middle of April, in a bed four feet wide, and as long as you require, according to the quantity of seedlings you wish to plant out. Sow thinly, and if the weather be dry, water it even before it is up. It will soon be above ground, and if there are any so close together as to prevent them from growing well, thin them in those parts; but as they are all to be planted out as soon as they have got four rough leaves, they are not to be thinned much, except where the seed has been huddled together by accident. They must be weeded as soon as they are up, and kept clear of weeds until they have grown strong enough to plant out. If a showery time comes, you may, for the sake of the great advantage of wet ground, plant out smaller than we should propose as a general rule; and so, instead of waiting for four rough leaves, plant them out with only two. On the other hand, we would wait till the last day if there were any prospect of rain, rather than plant out in dry weather. Let the ground be dug or ploughed, and harrowed, ready for planting out, and plant them out in rows three feet from each other, and the plants two feet apart in the rows. Let them be dibbled in, the same as cabbage-plants, except that they must not be put in deep. If they are planted on a large scale, it is as well to plough a furrow every three feet, and plant at the bottom of this furrow; and unless it be wet weather, they must be watered in; but this labor can be got rid of by planting in rainy weather. In about a month, when they have become established, and the weeds have grown up pretty thickly, the crop must be well cleared. After this, the plants will overpower the weeds, and they will want no more care till nearly in flower, when five or six of the best advancing buds may be selected, and the buds at the ends of all the other branches may be pulled off. This has the effect of driving all the strength of the plant into a few heads of bloom, and sending all into flower at one time, otherwise the sunflower will begin with the crown bloom, and contain a succession of lateral flowers for months, so that one-half never ripen the seeds, and the early ones are weakened by the constant opening of the side blooms. There is not a single crop so inviting to small birds; as soon, therefore, as the seeds ripen, there must be a continual watchfulness: people sent round with baskets to gather the seeds as they ripen, and boys employed to drive away birds as the harvest approaches. The heads are not to remain on the tree until the seeds are all black, but as soon as the seeds are full-grown, and the outside ones are turned black, say two-thirds towards the centre, they are fit to gather. They should be placed in the sun upon cloths and perfectly dried, when they fall out of themselves; at all events, children may be employed to rub them out, and they are as easily cleared as any seed that is grown. With regard to the plants, they may be treated as hemp and flax for the purpose of using the fibre, or may be burned on the ground after drying, that their ashes may be spread; but the seed alone, whether used for its oil and cake, or as food for cattle, pigs, and poultry, will repay well the cost and trouble of cultivation. *Ibid.*

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A Note from Paris.—I yesterday spent a long time in the *Jardin des Plantes*. With the exception of one hill well planted with all sorts of evergreens, and one superb cedar of Lebanon, the largest in France, it is not particularly interesting in a horticultural point of view.

I saw there the *Mother Paulownia*, every termi-

nal branch of which, ending in a flower skeleton (or group of buds) for next spring's bloom. There are two trees here twenty or thirty feet high, the leaves not larger than those of the Catalpa; and exceedingly like that tree, in the stiff and brittle looking growth. Yours, *H. W. S. Paris, Oct.* 27, 1848. ....

Destruction of Rats and Mice.—There is no need of demonstrating how sadly troublesome these two species of *ronzeurs* are to our young plantations of all sorts, and especially to the seed beds. Many modes have hitherto been devised to destroy them, none of them quite satisfactory. The following two methods are however certain to effect the purpose.

Cut a cork into very small pieces, and fry the latter in lard, butter, or drippings; place it here and there in little heaps in the garden. The rats and mice swallow it with avidity, and soon disappear from the garden, killed by this indigestible substance. Bits of sponge fried in the same manner, produce the same effects still more promptly. The same dose may be used with equally good effect against those wandering cats and dogs, whose gambols are so destructive to the good condition of glass-ranges or newly planted beds. These substances are easily obtained and made ready for use, and they offer none of the inconveniences and dangers attending the employment or arsenic. *Flore des Serres.* ....

Aberdeen Bee-hive Strawberry.—This sort, so much vaunted in the newspapers by the originator, is likely to prove a complete "humbug." Several English gardeners state, in the *Gardeners' Chronicle*, that it is only the old *Grove-end Scarlet*, a well known sort; and we notice the following note in M. Van Houtte's Catalogue just received from Ghent:—

"This variety, pompously announced, as a new wonder, by Mr. Jas. Matthewson, of Aberdeen, appears to bear nothing but fruits of inferior quality. I possess a considerable quantity, and I offer plants gratuitously to any of my correspondents, who may desire to try its culture. I will on the other hand, indemnify fully those to whom I may have sold this strawberry."

Large fruited monthly Raspberry.—This new variety has been exhibited before a Horticultural Society, and at various places in London this autumn, "the canes loaded with clusters of fine fruit on every lateral from base to summit. It is likely to prove a decided acquisition. Mr. Rivers (of the Sawbridgeworth nurseries, England,) we observe, offers plants for eighteen shillings (sterling) per dozen.

New Foreign Grapes—We copy the following description of new varieties of grapes (by Mr. Thompson,) from the *Journal of the Horticultural Society of London*. It will be very desirable to introduce them into this country, especially the sort last named. Ed.]

Notes on some varieties of Grapes fruited in the garden of the Society in 1847—1. Sahibee. A Deccan Grape, sent to the society by Colonel Sykes.

A large handsome bunch, sometimes slightly shouldered, berries large, oval, white, with a rose-colored tinge next the sun. Pulp tender, juicy, sweet, without any muscat flavor, pleasant, but not equal in richness to the Sweet-water.

The vine, notwithstanding the hot climate from which it was imported, bursts soon into leaf; and as the fruit ripens early, it may prove eligible for easy forcing.

2. Verdal. The foliage of this resemble, that of the white Frontignan; but the fruit is like that of the Royal Muscadine; yet, independent of its properties as a wine grape, it appears deserving of cultivation. It ripens soon after the Royal Muscadine.

3. Reeves' Muscadine. This was imported from the Cape of Good Hope, without a name, by John Reeves, Esq., and as it appears worthy of cultivation, it has been designated as above.

Bunch large, shouldered, stalk thick, pedicels short and stiff, berries oval. skin yellowish white, rather thick, pulp melting, juicy and rich. A good grape, ripening quite as early as the Black Hamburgh, under similar circumstances.

4. Blussard Noir. From Messrs. Baumann. This may be described as a smaller, earlier, and more sugary variety than the Black Hamburgh, which, in other respects, it resembles.

5. Gros Gommier du Cantal. This was sent to the Society from Paris, by Mr. Francis Rauch. A very strong-growing variety, with remarkably short-jointed wood; leaves deeply serrated, and occasionally lobed, veins and mid-rib on the under-side somewhat rough with bristly hair. Bunch large, with a strong stalk; berries very large, upwards of three inches in circumference, round, and of a red or grizzly color, pulp juicy, with a flavor as if between the Black Hamburgh and white Sweetwater. The latter being by itself a bad setter, and on that account not unusually fertilized by the Black Hamburgh, it is probable that this variety is a cross between the two; at all events, if this be imagined, a correct idea of the grape will be obtained, for it seems to partake of both. *Jour. Hort. Soc. vol. 3d, part 4.*

## DOMESTIC NOTICES.

PRIZES FOR NATIVE GRAPES.—We find it stated in the newspapers that Mr. LONGWORTH, of Cincinnati, has offered at a late meeting of the Philadelphia Horticultural Society, the following premiums for seedling varieties of our native grapes, viz:

$50 for a seedling Catawba, the berry white, blue, or black, and equal in flavor to the original.

The same prize for one of like color and quality from the Ohio grape.

The same prize for one of like color and quality from the Herbemont grape.

The same prize for one of like color and quality from the Missouri grape.

These are temptations to skilful and patient cultivators—and as nothing in the way of new fruit is more desirable than valuable new native grapes, we trust Mr. LONGWORTH's spirited offer will set fruit-growers and gardeners at work.

There are two modes likely to insure success, and, if they are attended to, it will not be difficult to raise new seedling varieties greatly superior to any native sorts now cultivated.

The first of these is to select those berries which show a tendency to *vary* from the original shape and size—and especially those which are *larger*. It is not unusual, especially on vines which bear but few bunches, to find some berries nearly double the size of the others upon the bunch. If the seeds from these berries are selected for planting, the chances of getting an improved variety are greatly increased. In order to proceed more scientifically, and with more *certainty* of improved seedlings, you must resort to *crossing*.

When your Catawba, or other native grapes, are coming into blossom, watch them closely, and as soon as they expand, cut out the anthers with a small pointed scissors; then go to a foreign vine, of some first rate sort—say Black Hamburgh, and take some pollen from blossoms in *full bloom*. You may put it in a vial and keep it a month if the foreign vines happen to bloom first, which they will do if they are under glass. The flowers of the native vine being ready (say 2 or 3 days after they expand,) take up some of the pollen from the foreign grapes on a camel's hair brush, and apply it to the pistils in the blossoms of the native grape, from which you previously cut out the anthers. The fruit produced will be a cross between the two, and the young plants afforded by sowing the seeds of their fruit, will, in all probability, partake of the delicious flavor of the foreign grape, and the hardiness of the native. We must add, that when the anthers are first cut out, the bunches should be enclosed in a fine muslin bag to prevent the blossoms being fertilized by the pollen of other blossoms on the same plant.

This is the way in which nearly all the superb new varieties of plants are originated abroad, and it may be applied to the grape doubtless with the same good results.

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THE POMOLOGICAL CONVENTION.—In a late number of *Bement's Journal of Agriculture*, (Albany,) some exceedingly amiable and pleasant writer under the name of "Fidelius," (or "Fiddle-de-dee-us," we forget which) indulges in a strain of *flattery* regarding the officers and committees of this convention, which amuses us not a little.

He torments his imagination, however, with the idea of the overpowering influence of some *Eastern clique*, which he thinks managed all the affairs of the meeting. What will our western friends, including Mr. ALLEN, of St. Louis, (who if we mistake not, talked and acted for his constituents as a sturdy western man should,) say to this? What will that honest "Jersey Blue," Mr. HANCOCK, or the quick witted BARRY, of Rochester, all of whom were on the spot, and "wide awake," say to it? Truly, there were many men there who would not be easily managed. But *we*, yes, there's the rub, we were actually a delegate from the Massachusetts Horticultural Society! "Heads and blood!" this, truly, smells horribly of gun-powder. Softly, unknown friend "Fidelius," this was an innocent *compliment*, only do not let it, like Banquo's ghost, "o'er come you like a summer's cloud!" We went as a delegate from the *Orange county Agricultural Society*.

We are honestly grieved to find that "Fidelius" cannot approve of the doings of the Convention. We are confident that as he grows *calmer* he will think better of it. To our own humble apprehension, it was the most intelligent and the most satisfactory meeting of horticulturists ever held in America. Numerous letters, that we have since received from all parts of the country, from members of that Convention, expressing their desire to continue the good work commenced there, by all the means within their reach, prove to us that it has awakened a new, more intelligent, and wider interest in Pomology, than has hitherto existed on either side of the Atlantic. If "Fidelius" will only throw aside his prejudices, and labor in common with the members of this Convention, who have the public good at heart, then, perhaps, shall we all arrive at this object more speedily.

The *Genesee Farmer*, a journal of very large circulation, and very ably conducted, represents, we think, the general feeling of the country regarding this convention, in an article on this subject, from which we quote the following:—

"This Congress may truly be regarded as the most important public movement yet made on this

continent, in connection with pomological science. It was not, nor could it have been expected to accomplish much beyond a complete organization. This is now effected. The appointment of the STANDING FRUIT COMMITTEE, consisting of the most skilful pomologists and fruit growers in the United States and Canada, is a grand movement; and if the convention had accomplished this alone, it would not have assembled in vain. This committee, after a year of research, cannot fail on reassembling, to make such a report as will be of infinite service to the country.

The proceedings and discussions throughout, with one trifling exception, were characterized by rare harmony, good feeling, and enjoyment. Indeed it was not only an important deliberative body, assembled to promote the ends of science, but a delightful re-union of the most tasteful and intelligent cultivators of the soil from all parts of our country. The collection of fruits was imposing and beautiful, and afforded at all intervals of business, pleasant and profitable themes for discussion and remark.

Aside from the benefits to be derived from the public discussions and future action of this body, every member of the convention must have felt himself amply repaid for the trouble and expense attending it, by the rare opportunity it afforded for the private interchange of facts, opinions, and specimens of fruits, as well as the forming of new social and business relations. These are all invaluable acquisitions, and could not have been well obtained under other circumstances.

We should be wanting in duty, were we to neglect here, as a delegate, to express our acknowledgments to the American Institute for the liberality and kindness extended to the convention, in preparing a suitable Hall, in paying expenses on all fruits sent to it, and in admitting all the members free to their exhibition in Castle Garden; to the respective committees of arrangements who discharged their arduous duties in the most satisfactory manner; and to the distinguished President, MARSHALL P. WILDER, Esq., of Mass., whose rare ability, forbearance, and impartiality in the chair, greatly facilitated the transaction of business, and secured that harmony of which it has been our pleasure to speak." *Genesee Farmer for Nov.*

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HORTICULTURAL TRAVELLER.—Mr. BARRY, the well known and intelligent editor of the *Genesee Farmer*, has just sailed for Europe, on a horticultural tour of a few months. He proposes not only to examine the points in gardening most interesting in England, France, and Germany, but to bring home the most interesting novelties, especially in hardy trees and shrubs, to enrich the nurseries at Rochester.

Mr. COLMAN, the Agricultural tourist, has returned to this country since the issue of our last number. We presume the last number of his *Report* will soon be forthcoming, and we have no doubt the public will be favored with some other work containing the rich materials which Mr. C. must have collected abroad, with his unusually excellent opportunites.

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LABELS FOR TREES.—A correspondent recommends zinc labels, and gives us the following recipe for making ink suitable for writing upon them:

Take half a drachm of lamp-black, one drachm of verdigris, one drachm of sal-ammoniac (pulverized) and dissolve them in ten drachms of water. This will form a permanent ink, which may be used for writing upon the strips of zinc, and will last as long as the labels. ....

CURIOUS POMONAL FREAK.—There is an odd example of departure from the ordinary laws of nature, in an orchard of one of our neighbors, WM. DENNING, Esq., of Presque Isle, Dutchess county. The tree is one of a row, all of which are *Rhode Island Greenings*. This particular tree also bears a proper crop of Rhode Island Greenings, except on one large branch, which for two or three years past has borne *Russet* apples. The latter apples are, in size and form, Rhode Island Greenings, but the skin is perfectly covered with russet, and the flesh, though of the normal color, is drier and tougher, like that of most russets. The limb which has *sported* in this way, is larger than one's arm, and, on examining it carefully, we find no evidence of its having been grafted; and Mr. DENNING, who is a most skilful and sagacious orchadist, informs us that it has not been. Since the foliage, on this branch, and also the form and size of the fruit are quite those of the rest of the tree, it would appear that this singular russet dress has been assumed by the fruit of this branch in defiance of the usual habits of the variety.

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COE'S LATE RED PLUM —We observed also in the garden at Presque Isle, a tree so loaded with a fine crop of *Coe's late Red Plum*, that the branches bent almost like those of a willow. The fruit was then (Oct. 18th) ripening, and was excellent in flavor. This is the latest good plum for our latitude. It is even better a little farther south, and to the northward of this it does not ripen well.

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THE MELON APPLE.—Among the remarkably fine fruits shown at the Pomological convention in New-York, some specimens of this new apple, described in our last volume, were greatly admired. They were from Rochester and Macedon, N. Y. Its beauty, as well as its unusual juicyness and freshness of flavor, will make it much sought after as a dessert fruit.

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THE FRUIT COMMITTEE.—We observe a special blunder in the enumeration of the *special fruit committee*, in our account of the New-York Pomological Convention, given in the last number.

The names of two gentlemen were unintentionally omitted, and those of two others given in their place. The correct list is as follows: THOMAS HANCOCK, J. J. THOMAS, ROBT. BUIST, ROBERT MANNING, HERMAN WENDELL, JOSIAH LOVETT, L. C. EATON, GEO. GABRIEL, and A. J. DOWNING. (*Chairman.*)

A *circular of suggestions* is being prepared by the chairman of the *General Fruit Committee*, which will soon be forwarded to the members of the committee in all the different states.

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PINE-APPLES BY STEAM.—A manufacturer in Philadelphia, is said to have hit upon a novel mode of growing pine-apples. He introduces waste steam under the bottom of the bed into which the pines are plunged, and thus grows and ripens the fruit very perfectly under our hot summer sun, without the aid of glass. Owing to this full exposure to the air, the flavor of the fruit is far superior to that of pines ripened in the hot-house.

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WOOD ASHES *vs.* INSECTS IN THE SOIL.—Mr. DOWNING: I have been in previous seasons much plagued by grubs and insects in the soil, so that I was obliged almost to abandon the cultivation of carrots and some other vegetables.

Two years ago I gave my plants in the kitchen garden a heavy manuring of fresh wood ashes. On those portions so dressed, I have since cultivated crops of vegetables without the least difficulty, the worms having entirely disappeared Yours, &c. *M. R. W. Jersey City, N. J., Nov.*, 1848.

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BITUMINOUS COAL ASHES.—*Dear Sir:* I have been in the habit of using the ashes of *Liverpool* coal as a manure for three years past, and find it of great value.

Applied to trees of all kinds, and especially to fruit trees and evergreens, it acts wonderfully well. Indeed, I now use it wherever I plant a tree or shrub, mixing several shovelfuls with the soil put immediately about the roots, and with the most evident benefit to the subjects to which it is applied as compared with those not so treated. As those ashes are frequently thrown away, would it not be well to say something on this subject. Yours *A Philadelphia Subscriber. Nov.* 1848. [Bituminous coal ashes are very valuable in organic manures for all trees and shrubs. We find that evergreens thrive particularly when treated with them. ED.]

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CEREUS CRENATUS.—I would recommend to your notice and that of your readers, the *Cereus crenatus*, as one of the most beautiful of the Cactus tribe, and certainly the finest recent acquisition I have seen to our succulent exotics.

It is a remarkable plant. The flowers are *white*, large and magnificent, rivalling those of the night blooming Cereus, while they differ by opening in the day time. It received the highest medal at the Chiswick exhibition, in June, 1845, offered for *new* plants. Its native country is Honduras. Although similar in some respects to *Epiphyllum latifrons*, it proves distinct, and far more desirable, because the flowers open in the day time, and *continue open for five or six days.* In addition it is deliciously sweet-scented, and cannot fail to be highly prized. The plant grows about two feet high, with large spreading branches, usually flat and broad, of a fine bright green, with large rounded teeth along the edges, and a prominent mid-rib. The flowers are produced near the extremity of the shoots, and have a slightly curved tube about four inches long, and numerous pale cream-colored petals of a delicate texture, forming a circle several rows deep, about five inches in diameter, from the centre of which a great number of filaments are protruded, about two-thirds the length of the petal. The bloom buds are of a brownish-pink before expansion. Yours very truly, WM. W. VALK, M. D. *Flushing, L. I. Oct.* 31, 1848.

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LATE AUTUMN FLOWERS.—There are peculiar points in gardening, that ought to be spoken of at times, as worthy the attention of your readers. I have one such to mention at present. On the north side of my garden, I have a tight wooden fence seven feet high, which of course gives one a warm sheltered border on the south side of it. Along a part of this fence I have this south border planted with *Chrysanthemums* (Artemesias,) *Salvias, Bourbon Roses*, and the like. Generally you know, these are cut off at the close of October by sharp frosts. But by planting them close to the fence, tying up the shoots as they grow, and then having a coping or *hood* of boards (say eighteen inches wide) projected over them from the top of the fence, from which I hang mats every cold night, I have this border in full bloom and beauty, often till near Christmas. You have no idea how superbly the Chinese Chrysanthemums grow and bloom in this way, as compared with those in pots; and they continue in flower a great length of time. The walk which runs along this border is a cheerful and ever gay one late in the autumn, after all the rest of the verdue and bloom of the garden has passed away. Respectfully yours. *Chrysops. Brooklyn, N. Y., Nov.* 11, 1848

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TO PREVENT THE MILDEW ON PEACH TREES.—Mildew infests many kinds of plants, and assumes many different appearances. It attacks peaches and nectarines, particularly the Tillotson, Early June, and other serrate varieties, seizing the tender points of the shoots, which are quickly destroyed.

It has been ascertained by naturalists, that the mildew is a species of fungus which attaches itself to certain plants, when they are in a peculiar state of growth favorable to its nature. If this be so, it cannot with propriety be called a disease, though

its effects are equally destructive. Luckily, it is a vegetable of a more delicate constitution than the plant it fixes upon, because it very soon yields to an application of soap suds, or to the following mixture:

Slack two pounds of fresh lime, with about six gallons of water; after it stands 16 or 18 hours, pour off the pure water and mix it with four gallons of soap suds. Syringe the trees once or twice with this mixture, at the time the mildew makes its appearance, and in a day or two it will disappear. This mixture appears also to nourish the trees, and give the leaves a verdure, and a luxuriant appearance superior to anything I ever before witnessed. This I have practiced several times with great success.

To prevent the mildew in the month of May, syringe your trees with soad-suds, then dust them well with common sulphur; this prevents any attack of mildew. *E. Dagge. Rochester.—Gen. Farm.* [This is valuable information—for it is well known that many of the highest flavored peaches are serrate-leaved sorts, more or less liable to have the points of the young shoots attacked by mildew. Orchardists may feel inclined to abandon them for more thrifty growing sorts, but amateurs will not grudge a little pains to obtain fruit of such delicious flavor as that of the old "Emperor of Russia." One fruit of that peach, to a real pomologist, is worth a ship load of "Malagatunes." Ed.]

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Hedge of the Southern Rose.—The best hedge in the United States, extends a mile along the highway on a plantation of 3,000 acres, near Augusta, Georgia. It is the *Cherokee Rose*, which every season, when in full bloom, presents a magnificent floral spectacle, and fills the atmosphere with delicious perfume. No animal, without wings, can get over it or through it. *Southern Cultivator.* [The Cherokee Rose is a most beautiful *evergreen* climbing rose, highly ornamental in all respects. We have attempted its cultivation here, but unfortunately it is too tender for a northern winter. Ed.]

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Stewed Celery.—Cut the blanched or white portion of the Celery stalks in pieces about an inch in length, and put them in a saucepan over the fire with milk and water, in equal proportions, barely sufficient to cover them; add a little salt, and let them stew gently until perfectly tender. Then take out the Celery, add a piece of butter to the liquid it was boiled in, thicken it slightly with flour, pour it over the Celery and serve it up.

[This excellent mode of cooking Celery may not be known to all our readers, and we recommend it, from long experience of its merits, as a delicious dish. Ed.]

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Grapes in a cold Vinery.—We have already mentioned the magnificent Black Hamburgh, and other foreign grapes, shown by G. R. Russell, Esq., at the annual exhibition of the Massachusetts Hort. Society. In a private letter received from this gentleman since, we find some remarks on their culture, which we venture to extract for the benefit of our readers:

"My Vinery was constructed in the spring of 1846. It is a double, or span-roof, could house, [i. e., without fire heat.] It is one hundred and fifty feet long, twenty five feet wide, and contains 94 vines—principally Black Hamburgh, with, for variety, the Frontignans, Royal Muscadine, Muscat of Alexandria, Frankendale, Syrian, White Nice, Chasselas, &c. Most of the vines were two years old when set out, with the exception of the Muscadines, which were one year, and the Muscats of Alexandria, which were started from single eyes the same year.

The *border*, which is 16 feet wide outside, and 8 feet inside, the house (making twenty-four feet borders on both sides of the vinery,) is three feet deep. It was made with great care, and is composed of the top-soil of a pasture field, street-sweepings from Boston, stable manure, bones, oyster shells, &c. It is well drained on all sides, and is devoted *exclusively* to the vines. There is a cistern in the centre of the house, built of brick and cement, 50 feet long, 5 feet wide, and 4 1-2 feet deep, which is filled from the roof. This is indispensable—particularly for the inner border.

I had, at first, some misgivings as to the success of the *cold*-house, as many persons thought the result doubtful. It is not a new thing about Boston, but it was supposed that the favorable result of partial trials might be owing to peculiarly favorable positions. I am now convinced that there is no difficulty in raising grapes, as far north as this, in a cold house, provided it is placed in a dry situation. [*Cold* vineries are perfectly successful on the Hudson. Ed.]

The Grapes I sent to the Horticultural Exhibition, were a fair sample of all in my house. I did not think of sending any until a few days before it took place, and my gardener was at a loss to select, leaving as good bunches on the vines as those placed on the tables of the Society.

As I have made it a point not to *press* the vines, not allowing them this year, to bear more than 4 bunches each, the fruit has probably been larger than it may be when in full bearing. I am respectfully, your obedient servant. *G. R. Russell. West Roxbury, Mass., Oct. 13th*, 1848.

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Osage Orange Hedges.—We are glad to find that this capital hedge plant, so easy of culture, so rapid in growth, so strong in its protective thorns, and so handsome in its foliage, is rapidly rising in public estimation. *Miles* of it are already planted about Cincinnati; and since it has been found hardy in the hedge form as far north as Boston, cultivators are trying it all over the northern states. The following practical remarks by our able cor-

respondent, Professor TURNER, which we copy from the *Prairie Farmer*, will be read with interest. ED.

"In relation to your inquiries about the Osage Orange, I know not what to say more than has already been said in the Horticulturist, the Prairie Farmer. the Ohio Cultivator, the Sangamon Journal, and, in short, almost every paper of note that takes any interest in agriculture in the United States. All the writers in all these papers who pretend to know anything about this plant, agree that it is in all respects unrivalled as a hedge plant in quickness of growth, the stubbornness and density of its branches and thorns, and the extreme beauty of its foliage, flowers and fruit. They all agree that it will prove perfectly hardy in any climate where the 'Isabella Grape will ripen in the open air.' And there are hedges of it standing in states from the latitude of Boston to the mouth of the Rio Grande.

"Hundreds of rods of it have been put out in Ohio, even amid their dense forests of timber, and it is doing first rate. There are pieces of it in this state and in Missouri, quite to the north of us, which are doing finely. I have had the plants on my ground ten years, and have them now of almost all ages and sizes, from ten years old to one month.

"I have one piece of hedge three years old next fall, that will turn any stock I have, from the smallest chicken, or rabbit, to the horse and ox. I have received letters on the subject from all parts of the Union, and have not received one unfavorable account from any one who has made a proper trial, with plants raised from the seeds in this climate. In some one or two instances, plants brought from the south, or allowed to freeze the first winter, have been injured afterwards, as of course might have been expected. I have some two or three miles of hedge put around my *pet* farm and orchard, and have this spring enclosed my house lot of four acres on College Hill. In transplanting thousands of plants this spring, I have had to replace only three. All who have seen my hedges intend to get them next spring; especially the English, who were accustomed to hedges in the old country, are quite taken with it. They say there is nothing in England that can be compared to it as a hedge plant. The desire to get it here is great I shall go next week and break eighteen or twenty miles of new prairie around some lands in Haverly, for which we shall prepare plants, and set them next spring *without any protection*. About six miles of this fence belongs to me, and the rest to others. I have agreed to guarantee all the plants, if set according to my directions. We expect at least to double the value of our lands by this operation in three years. I have an application from another man to put out eleven miles for him in the same way. Another thinks he shall want two hundred miles, as indeed he will, if he fences all his lands.

"As to its cost: it will not cost more than 25 to 50 cents per rod, to make the best hedge in the whole world for all farming purposes—according to the kind of fence made. For one kind it will take 1,000 plants, and from that to 2.500 for every eighty rods of fence. And had I the time, I would agree to fence the whole Mississippi valley for 25 cents per rod of one kind, and 50 cents per rod of the other kind of hedge, all complete and all cost included, and to perfect the whole in three, or at most four, years from the time the plants were set in the hedge. I find by experience that a mile of fence can be set much easier and quicker than I had supposed. My Englishman, with a boy to put in the plants, set fifty rods per day, after the plants were prepared, which the nurseryman ought always to do before he sells. But there is a right and a wrong way, after all, in this as well as in other matters; and all those foolish methods of sowing the seeds in the hedge row, trimming at two years old—setting out little, feeble, ill-assorted plants, &c. &c,, will prove worse than nothing.

"On the whole, my advice to you is to prepare as much ground as you can—select good plants, and, if possible, put your farm all under this fence next spring. Before that time, I shall write a pamphlet, giving specific instructions for setting, cultivating and trimming the hedge until it is complete, or three years old; or if not, I will keep you and your friends duly informed as far as needful; so you need not have any fears but you will get a first rate hedge, which will double the value of every acre of land you put it around. Plants will probably be cheaper next spring than they will be again for ten years. The demand will increase every year, and but few hereafter will raise them at the prices they will probably bring next spring; besides the comfort and convenience of having all your stock and fruit of all kinds entirely secure from all depredators and thieves, is too great to be postponed without a better reason than a probable cost of 25 or 50 cents per rod for a fence lasting as time, and beautiful as the fabled walks of the Elysian fields. If you wish any further information on any particular point, I shall at all times be happy to communicate with you. *J. B. Turner. Illinois College, June* 20, 1848."

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ERRATA.—In *Notes of our Foreign Correspondent*, in our last No., we find the following errors: For "Ourley." p. 244, read "Ouchi;" and p. 245, f r "Three Mons," read "Three Moors."

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## ANSWERS TO CORRESPONDENTS.

FRUIT CONVENTION.—*J. W. B.* We regret not having had a critical examination of your specimens, (which were not brought forward,) as well as that of several other friends, who were contributors. The labor of organizing, canvassing lists of varieties, &c., at this first meeting, necessarily occupied a large part of the time of those upon the Fruit committee; and the fact that the committee were not able to examine new fruits till the afternoon of the third day, (when some of the contributors had left,) rendered this part of their labors less complete than we could have wished. Another year, with the organization complete and in working order, it will be much easier to accomplish all efficiently. It is, indeed, surprising how much was really done.

MANURES.—*B. Williams.* You should apply guano, to obtain its full benefit, only where the plants are in a *growing* state. *T. G. Y.*—(Walworth, N. Y.) A light top dressing of leached ashes is highly beneficial to strawberry beds. We have no doubt that copperas may be substituted for oxide of iron in preventing the leaf-blight; but experience is wanted as to the quantity. We would advise you to use leached ashes heavily, as a manure in preparing your seed-beds for pears, and see if this will not remedy the evil.

PLUMS.—*D. D. J.*, (Hamden, Ct.) If you have a heavy soil, take the following six kinds: *Early*—Imperial Ottoman, Yellow Gage; *medium*—Bleecker's Gage, Jefferson; *late*—Coe's Golden Drop, Frost Gage. We do not know the "Potter" Plum. The Canada Plum makes a good stock for slow growing varieties; but many sorts out-grow it, and this renders the tree short lived. The *stocks* generally preferred for working plums on, are those raised from seeds of the common blue "*Horse Plum.*" There is also a yellow variety, well known and largely cultivated in western New-York, which gives good stocks. We do not know its name. The Apricot, as we find by experience, gives better flavored fruit, and is more hardy when worked on the Horse Plum stock than when budded on Apricot seedlings. *J. F.*—The three best late plums for Pennsylvania are the following: Coe's Golden Drop, Coe's Late Red, and St. Martin's Quetsche.

APPLES.—*J. Fulton*, (Pa.) Winter apples, to keep long, should be picked from the tree before frost, and carefully laid upon the floor, *by hand*, in an airy loft or out-building. Here they should be allowed to lie a fortnight; after which, on a dry day, they should be put up in barrels. The latter should be stored in a cool dry cellar; the cooler the better, so that severe frost does not enter.

VINERY GRAPES.—*A Connecticut Subscriber.* The grapes about Boston are chiefly pruned in the spurring-in mode; and a good deal of recent observation inclines us now to recommend this as the preferable mode for this climate. Whether the vinery is a cold one or not, does not affect the pruning; the same rules apply in either case. In cold vineries it is better to plant the vines inside the house, but with the front wall supported on piers, or open below the surface, so that the roots can pass freely into the border outside. *R. W.*—(Baltimore.) Plant Black Hamburg, Chasselas, Musqué, Grizzly Frontignan, and Muscat of Alexandria,—four of the most delicious grapes.

UPLAND RICE.—A friend at Cincinnati desires information, regarding the growth and culture of this plant. Will any of our correspondents, familiar with it, communicate with us on this subject?

CHERRIES.—*S.*, (Philadelphia.) Coe's Transparent Cherry is very beautiful and delicious,—one of the most delicate flavor for the dessert; it is in the way of Belle de Choisy, but finer. *T. G. Y.*—The great *Bigarreau of Mezel* is already in the possession of dealers in this country. Several of the larger nurseries can, doubtless, furnish you a tree in the bud. *J. F.*—For three of the best *late* cherries, take Sweet Montmorency, Buttner's Yellow, and Belle Magnifique.

PEARS.—*A New-Bedford Cultivator.* Louise Bonne de Jersey, (on quince,) Heathcot, Lawrence, and Flemish Beauty, will, we think, all do well "on the north side of a high wall" in your climate, and will bear good crops if the soil is well drained and prepared. *D. D. J.*—Pear seeds must either be sown in the fall, or kept in earth or sand, (so as to prevent their losing their vitality,) till spring.

RED SPIDER.—*H.*, (New-London, Ct.) The most effectual remedy, (says Buist,) is a thorough syringing with water *under* the foliage. This being done to the plants infested, every evening, will effectually subdue and banish them.

PLANTS IN CELLARS.—*W. R.*, (Milwaukie.) Oranges, lemons, pomegranates and hydrangeas, may be kept in good condition, in any cellar where there is a little light, and where the thermometer does not fall more than three or four degrees below the freezing point. But they should be kept *quite dormant*, by not watering them more than once or twice a month, and then only moderately. Admit air freely to the cellar every mild day in winter, when there is no frost.

DWARF TREES.—*Y.* Dwarf pears and apples may be planted from six to ten feet apart, as you have room to spare. They are not so long lived as when on pear roots, but have other great advantages,—such as coming very soon into bearing, occupying a small space, and thriving in many soils where pear stocks will not. They come into bearing as soon as they get established. It is not necessary to bud them *close* to the ground; though it is better that the junction should not be more than four or five inches above it.

BOOKS.—*H.*, (Marietta, O.) We shall give a list of the most desirable horticultural books in our next. The American edition of Lindley's Theory of Horticulture is out of print. The "Tree Lifter," is an English work, of little or no practical value. *W. H.*—(Philadelphia.) Consult Loudon's Encyclopedia of Trees and Shrubs. The "Guide to the Orchard," by George Lindley, is the best English work on fruits.

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*** Correspondents who are *subscribers*, will hereafter find replies to any questions on subjects within the scope of this journal, in this department, (unless otherwise requested)—and all queries put in a *brief shape*, and sent to us *free of postage*, shall receive attention. ED.

## MASSACHUSETTS HORTICULTURAL SOCIETY.

THE Twentieth Annual Exhibition of the Massachusetts Horticultural Society commenced in Faneuil Hall, Sept. 19th, at 12 o'clock, M., and was continued the following days.

A more magnificent collection of Fruit was never before presented to the public eye for inspection in this city, and we doubt whether it has ever been equalled in this country, or surpassed by the exhibition of any Society in Europe. As to quantity, it was so great that six large tables, the whole length of the hall, were hardly sufficient to contain it. The variety of Pears was immensely large, probably not much if any short of three hundred kinds. Of these, however, there were many sorts that were of no value in the exhibition only to show cultivators that they were not worthy of a place in their grounds. It is impossible for the Committee of Arrangements to designate the best specimens and the best varieties: we can only say, that large dishes of perfect fruit, thickly studded the tables.

The display of Apples, too, was without a parallel—embracing a very great number of varieties, some of them very beautiful, most of them well known as of the best quality.

The season for Plums being nearly over, there were but few dishes of this fruit exhibited. Of Peaches, also, the season was nearly passed, consequently they were not so abundant as they would have been had the exhibition been a little earlier. There were, however, some magnificent specimens of the Lemon Rareripe, Early Crawford, Old Mixon, and other varieties. Grapes, from Messrs. Russell, Strong, Allen, and others, were very fine and in great variety.

There was a great collection of Pot Plants from the various conservatories, and green-houses of our amateurs and nurserymen, but for the want of room they were not exhibited to the greatest advantage. Among them were some large and splendid plants of Camellias, Oranges, Acacias, and other species. The stands for flowers were all filled with choice Dahlias, Asters, Roses, &c.

The display of Vegetables was better than at any former exhibition.

The Decorations were designed by Mr. Sharp, and executed by Mr. Haggerston, and his associates, and were of the most tasteful and pleasing character.

The whole arrangement of Fruit, Flowers, Plants, Vegetables, and Mottoes, was of the first order. Old Faneuil Hall never looked more lovely. The hallowed influence of fruits and flowers, seemed to have dissipated the political atmosphere of mists in which the place is wont to be shrouded, and it appeared to smile like the garden of Eden.

The throng of visiters was very great: among them we were happy to recognize delegations from the Horticultural Societies of Philadelphia, and West Chester, Penn., New Haven, Ct., Providence, R. I., Worcester, and New Bedford, Mass., Delaware, Queen's County, N. Y., Rochester, N. Y., and St. Louis, Mo. The exhibition was honored by great numbers of distinguished strangers as well as our best and most valuable citizens; and we believe there was a universal feeling of satisfaction on the part of all who witnessed the display, and an acknowledgment that progress had been made in the Horticultural art.

### FRUITS EXHIBITED.

From Marshall P. Wilder, of Dorchester, President of the Society, two hundred varieties of Pears —viz.: Andrews, Angleterre Noisette, Ananas (French,) Ah Mon Dieu, Alpha, Belle Angevine, B. d'Angers, B. d Esquermes, B. Excellente, B. et Bonne, B. et Bonne (de Hee,) B. Caenais, B. Craonnaise, B. de Trois, Beurre d'Aremberg, B. d'Anjou, B. d'Amalis, B. d'Angleterre, B. Beauchamps, B. Beauleau, B. Bronze, (French,) B. Bronzee, B. Bosc, B. Beureal, B. Brown, B. Capiaumont, B. Coloma, B. Cutter, B. Diel, B. Imperiale, B. Goubault, B. Gens, B. Kenrick, B. Golden (Rivers,) B. d'Elberg, B. de Rhine, B. Triguer, B. Knox, B. Nereckman, B. Gris d'Hiver Nouveau, B. Moire, B. Noir Chain, B. Rance, B. Spence, Bon Chretien Williams's, B. C. Fondante, B. C. Winter, Bergamotte Cadette, Bergamot (Gansel's,) B. Easter, Buffum, Belmont, Bleeker's Meadow, Bezi de la Motte, B. des Veterans, Black Worcester, Brougham, Bankerbine, Beau present d'Artois, Bezi Vaet, Bizamumy, Bonne ente, Benoist, Cadet de Vaux, Catillac, Chaumontel Belge, C. Anglaise, Colmar Van Mons, Colmar d'Aremberg, C. du Lot Columbia, Compte de Lamy, Contesse de Lunay, Captif St. Helene, Cushing, Delices de Jodoigne, Dunmore, Dix, Duchesse d'Angouleme, D. d Orleans, Doyenne white, D. gray, D. gris d'hiver nouveau, D. musque, Dingler, Drake (Edwards',) De Lepine, Eyewood, Edwards (summer,) Epine d'hiver, E. Dumas, Echasserie, Enfant Prodigue, Exquis, Fulton, Fortunee, Figue de Naples, Flemish Beauty, Fondante d'Automne, F. du Bois, F. du Bois (Vilmorin,) F. de Charneuse, Frederick of Wurtemburg, Gilogil, Glout Morceau, Girardin, Gendesheim, Glout Morceau, (Cambrone,) Green Sugar, Gros Romain Carmelite, Heathcot, Howell, Hericart, Inconnue Van Mons, Jalousie de Fontenay Vendee, Jalvie, Juvardelle, Jalousie nouvelle, Knight's Seedling, (R. I.,) King Edward, Lawrence, Louise bonne de Jersey, Leon le Clerc, Long Green (of Coxe,) Monarch, Madotte, Mansuette, Marie Louise, McLaughlin, Napoleon, Ne plus Meuris, Pater Noster, Poire de Conde, P. de Jacob, Passe Colmar, Paradise, Passe Tardive, Queen Caroline, Ridelle, Roi de Rome, Rousselet de Rheims, R. d'hiver, St. Michael Archange, (Rivers's,) St. Michael Archange, Sanspareille, Seckel, St. Germain, (Prince's,) do. Edwards's, do. Uvedale's, St. Andre (O.,) Sieule, Sucre Vert, Sageret, Stuyck, St. Denis, St. Laurens, St. Francis, Soldat Laboureur (Belgique,) Souvrain d'hiver, Sans Pepins, Salviati, Swan's Egg, St. Andre, (V.,) &c., Thompson, Tarquin, Unknown sorts, 11, Urbaniste, Vicar of Winkfield, Verte longue d'Automne panachee, Voix aux Pretres, Vicompte de Spoelberch, Van Mons No. 65, Van Mons Leon le Clerc, Winter Nelis, Wilbur, Whitfield, Wilkinson, Waterloo, &c., &c. Plums—Coe's Golden Drop, Merveille (new,) Reine Claude de Bavay, (new,) St. Catharine. Apples—Gravenstein, Lyman's Sweet, Gloria Mundi.

From the Pomological Garden, Salem, by R. Manning, two hundred and sixty sorts of Pears, viz.:—Ambrosia, Ananas d'Ete, Andrews, Althorp

Crassane, Alpha, Aston Town, Bruno de Bosco, Bergamotte d'Automne, Black Pear of Worcester, Bezi de Montigny, Beurre Witzhumb, B. Van Marum, B. Craupaud, B. Kenrick, B. Rance, B. Angleterre, B. d'Aremberg, B. Adam, B. of Bolwiller, B. Diel, B. Amandes, B. Thouin, B. d'Amalis, B. Delbecq, B. Bosc, Bleeker's Meadow, Bergamotte Parthenay, Bordeaux, Bergamotte Fortunee, Brown Beurre, Brougham, Bon Chretien Fondante, Belle Fondante, Bergamotte Cadette, Bishop's Thumb, Burgomaster, Bezi de la Motte, Bois Napoleon, Bonne Louise, Brugman's Birne, Brande's St. Germain, Buffum, Bartlett, Belle et Bonne, Bergamot Neill, Cross, Comte de Lelieur, Colmar Epine, Calebasse Monstreuse, Comte de Lamy, Caroline, Columbia, Capuchin, Croft Castle, Capsheaf, Capiaumont, Capucin, V. M., Catillac, Caillot Rosat, Chaptal, Caen du France, Coter, Calebasse, Clinton, Charles of Austria, Citron of Bohemia, Crassane, Clara, Coloma, Chaumontel, Cuvelier, Colmar Neill, Cabot, Dearborn (of Van Mons,) Doyenne Boussoch, Du Parrain, Duchesse d'Angouleme, Duchesse d'Orleans, Dix, Doyenne d'Hiver, Dundas, Dunmore, Doyenne Gray, Duchesse de Mars, Doyenne d'Alencon, Doyenne White, Delices d'Hardenpont, Doyenne Louis, Eyewood, Easter Beurre, Endicott, Emerald, Easter Bergamot, Enfant Prodige, Epine d'ete, Flemish Beauty, Flemish Bon Chretien, Fig of Naples, Fulton, Fondante d'Automne, Frederick of Wurtemburg, Fantasie Van Mons, Flemish Sabine, Foster's St. Michael, Glout Morceau, Gilogil, Gendesheim, Gansel's Bergamot, Green Sugar, Golden Beurre of Bilboa, Henry the Fourth, Hadley, Hunt's Connecticut, Hathorne's Seedling, Heathcot, Hacon's Incomparable, Henriette, Hericart, Henri Van Mons, Harvard, Huguenot, Jaminette d'Hiver, Jalousie, Jean de Witte, Jaminette, Jalousie de Fontenay Vendee, John Dean, Juvardal, Jubin, Johonnot, King Edward, Lincoln, Leon le Clerc, three vars., Long Green of Duhamel, Louise Bonne of Jersey, L. B. Real, Long Green, Lederbirne, Las Canas, Locke, Lewis, March Bergamot, Muscadine, Meuris d'Hiver, Marie, Manning, Marie Louise, Moccas, Messire Jean, Monarch (false,) Miel de Waterloo, Madotte, Marcelis, Napoleon, Ne plus Meuris, Prince's St. Germain, Pitt's Marie Louise, Plombgastel, Paradise d'Automne, Pomme Poire, Petre, Princesse of Orange, Passe Colmar, Pope's Russet, Pater Noster, Pennsylvania, Pailliau, Parmentier, Queen of the Low Countries, Quilletette, Rousse Lench, Rameau, Raymond, Rousselette de Rheims, R. de Meester, R. d'Esperen, Ronville, Reine des Poires, Seckel, Seedling, Surpasse Virgalieu, Sousreine, Sickler, Sansperiel, St. Germain Tillon, St. Bruno, St. Germain, Spanish Bon Chretien, Sieulle, Sovereign of Spring, Sullivan, Serrurier d'Automne, Schooling Merry, Stevens's Genesee, St. Ghislain, Swiss Bergamot, Superfondante, Shobden Court, Thompson's, Tillington, Uvedale's St. Germain, Urbaniste, Van Mons Leon le Clerc, Vacat, Vicar of Winkfield, Van Assene, Whitfield, Winter Crassane, Winter Nelis, Wilkinson, White Doyenne, Winter Quince, Washington, Williams's Early, Wurzer d'Automne; fifteen varieties, unknown, and the following Nos. of Van Mons:—No. 135, 177, 182, 365, 698, 858, 879, 968, 969, 982, 1028, 1036, 1074, 1082, 1253, 1258, 1325, 1451, 1454, 1482, 1535, 1602, and five vars. unknown. Apples—one hundred and eighteen varieties, viz.:—Aunt Hannah, Acton Spice, Ananas, Alfreston, American Golden Pippin, Brabant Bellflower, Black Apple, Baldwin, Boxford, Ben, Black Coal, Beauty of Kent, Beachamwell's, Bickley's White Sweet, Cambuthnethum, Crow s Egg(?), Cornish Aromatic, Chandler, Corse's Sweeting, Danvers Winter Sweet, Drop d'Or, Denmark, Downton Pippin, Dumelow Seedling, Dutch Codlin, Esopus Spitzenburg, Edward's Russet, English Summer Pearmain, English Golden Russet, Fall Harvey, Framata Rosa, Fameuse, Fallawater, Fearn's Pippin, Fenouillet Rouge, Granny Earl, Gravenstein, Green Sweet, Hay Boys, Grey French Reinette, Gloucester, Hubbardston Nonsuch, Haskell Sweeting, Holland Pippin, Hoary Morning, Ipswich Seek-no-further, Jonathan, Kraam, King of the Pippins, Hampshire Green, King Philip, Lovett Sweeting, Lucombe's Seedling, two vars., Leyden Pippin, Lyman Pumpkin Sweet, Lyscom, Large Burden, Minister, Maiden's Blush, Murphy, Mela Carla, Morgan's Royal, Morgan, Merchants' Reding, Nonsuch, Needles, Newark Pippin, Otley Pippin, Pumpkin Sweet, Pennock's, Pigeonette, Pelham Sweet, Pound, Pomme Royale, Pearson's Plate, President, Porter, Pownal Spitzenberg, Priestley, Rawles' Janet, Ribston Pippin, Rose of Sharon, Rhode Island Greening, Rymer, Ramsdell's Red Pumpkin Sweet, Roxbury Russet, Rambour Franc, Red Calville, Roe's Sweet, Rambo, Roman Stem, Russet Pearmain, Spice Sweet, Swan's Pine, Swaar, Sam Young, Scarlet Nonpareil, Sparhawk's, Spring Greening, Slug Sweeting, Strawberry, Templeton Winter Sweet, Turn of the Lane, Vermont Sweet, Vandevere, two vars., Wormsley Pippin, Winesap, Wellington, two vars., Winter Sweet Paradise, Wells' Sweeting, Winter Queen, Wing Sweeting, Waterman Reding, Warner Russet, Yellow Bellflower.

From Vice President B. V. French, of Braintree, seventy-three varieties of Apples, viz.:—Adam's Sweet, Black Apple (of Cox,) Blenheim Orange, Burrasoe, Baltimore, Ben Apple, Blooming Red, Baldwin, Canada Reinette, Dutch Codlin, Dominisky, or Lord's, Danver's Winter Sweet, Esopus Spitzenberg, French's Sweet, Fallawater, Fearn's Pippin, Fall Greening, Gardner's Sweet, Gravenstein, Golden Russet, Garden Striped, Hoary Morning, Hawthornden, Hubbardston Nonsuch, Jonathan Kenrick's Autumn, Long Nonsuch, Long Russet, Lucomb's Seedling, Lyscom, Murphy, Monstrous Pippin, Mela Carla, Nonsuch, Nonpareil, Pomme de Neige, Porter, Pomme d'Api, Pumpkin Russet (sweet,) Peck's Pleasant, Pearmain, Pennock, Royal, Ruggles, Ross's Nonpareil, Roxbury Russet, Rhode Island Greening, Sweet Greening, Seaver's Sweet, Sugar Sweet, Seek-no-further, (from Hingham,) Seek-no-further, Wine, Winter Gilliflower, Spice, White Wales Apple, Wellington, Yellow Bellflower, Yellow Newtown Pippin; thirteen varieties unknown. Pears—viz.: Beurre Bosc, B. Van Marum, Capiaumont, Duchesse d'Angouleme, Grosse Bruxelles, Gore's Heathcot, Good Lewis(?) Harvard, Long Green, Messire Jean, Seckel, Passe Colmar, Tillington, Vicar of Winkfield. Peaches—viz.: Crawford's Late, Old Mixon (free).

From Vice President Cheever Newhall, of Dorchester, twenty-four varieties of Pears—viz.: Althorp Crassane, Beurre Diel, B. d'Aremberg, B. d'Amalis, Bleeker's Meadow, Chaumontel, Dunmore, Dix, Frederick de Wurtemburg, Fondante d'Automne, Fulton, Harrison Autumn, Heathcot, Knight's Seedling, Louise Bonne de Jersey, Long Green, Lawrence, Vicar of Winkfield, Marie Louise, McLaughlin, Napoleon, Oliver's Seedling, Rousselet de Rheims, Urbaniste. Apples—viz.: Domine, De Neige, Golden Pippin, Gravenstein, Porter, R. I. Greening, Rambo, Ribston Pippin,

Snow Apple, Seaver Sweet, Winter. Plums—viz.: Coe's Golden Drop, Purple Prune, Orleans, Prune d'Agen. Peaches—Crawford's Early, Old Mixon.

From Samuel Walker, Roxbury, eighty-two varieties of Pears—viz.: Andrews, Ananas, Angora, Belle et Bonne, Boucquia, Belle et Bonne de Hee, Bergamot (Gansel's,) B. Hampden's, Beurre d' Aremberg, B. Brown, B. Capiaumont, B. Diel, B. Duval, B. Easter, B. Rance, B. Golden of Bilboa, B. d'Anjou, B. Piquery, Bezi Vaet, Bicknal, Bon Chretien (Williams's,) Broom Park, Chaumontel, Chaptal, Colmar d'Ete, Champagne, Colmar d'Automne, Comte de Lamy, Columbia, Crassane, Crassane, (Winter,) Crassane Althorp, Dix, Doyenne White, D. Gray, D. Rouge, D. Dore, Duchesse d'Angouleme, Dunmore, Delices de Jodoigne, Epine Dumas, Eyewood, Flemish Beauty, Fondante d'Automne, F. Van Mons, Figue, F. de Naples, Fourcroy, Gilogil, Gendesheim, Glout Morceau, Hacon's Incomparable, Johonnot, Lawrence, Louise Bonne de Jersey, Messire Jean, McLaughlin, Monarch (Knight's,) Moor-fowl Egg, Martin Sec, Napoleon, Ne plus Meuris, Pacquency, Passe Colmar, Queen of Low Countries, Rousselette de Rheims, Rousselette, Seckel, St. Germain, St. Ghislain, St. Mesmire, Swan's Egg, Stone, Tyson, Urlaniste, Van Mons Leon le Clerc, Verte Longue b'Automne, Voix aux Pretres, Winter Nelis, Wildiams's Early, and two varieties unknown.

From Josiah Lovett, of Beverly, twenty-six varieties of Pears—viz.: Althorp Crassane, Andrews, Beurre Bosc, B. Diel, B. d'Amalis, Gansel's Bergamot, Catillac, Dunmore, Flemish Beauty, Fondante d'Automne, Fulton, Great Citron of Bohemia, Harvard, Golden Buerre of Bilboa, Jalousie, King Edward, Knight's Monarch, Louise Bonne de Jersey, McLaughlin, Marie Louise, Madotte d'hiver, Pitt's Prolific, Summer Franc Real, Urbaniste, Winter Nelis, Williams's Bon Chretien.

From Otis Johnson, Lynn, sixty-three varieties of Pears—viz.: Angleterre, Brown Beurre, Beurre d'Aremberg, B. d'Amalis, B. Bronzee, B. Diel, Buffum, Bleeker's Meadow, Bezi de la Motte, Belle et Bonne, Calebasse, Catillac, Cushing, Duchesse d'Angouleme, Doyenne blanc, Dix, Echasserie, Epine d'Ete, Easter Beurre, Flemish Beauty, Frederick of Wurtemburg, Franc Real d'Hiver, Glout Morceau, Gilogil, Harvard, Henry IV., Hacon's Incomparable, Hericart, Jalousie, Johonnot, Lewis, Louise Bonne de Jersey, Lawrence, Moccas, Marie Louise, Martin Sec, Marquis, Napoleon, Princess of Orange, Passe Colmar, Prince's St. Germain, Pope's Russet, Rousselet de Rheims, R. Panache, Seckel, Saint Ghislain, Uvedale's St. Germain, Urbaniste, Valee Franche, Verte Longue, Vicar of Winkfield, Winter Nelis, Washington, Williams's Bon Chretien, and seven kinds unknown. Grapes—Black Hamburgh, White Chasselas, White Muscat of Alexandria, Zinfendal. Two varieties of Apples. Four varieties of Peaches. Four varieties of Plums.

From Joseph S. Cabot, Salem, Sixty-six varieties of Pears—viz.: Althorp Crassane, Andrews, Beurre Diel, B. d'Aremberg, B. Meise, B. Curtet, Basket, Bon Chretien Fondante, Louise Bonne de Jersey, Bezi de la Motte, Belle Esquermes, Gansel's Bergamot, Bocquia, Cushing, Capiaumont, Catillac, Capucin, Compte de Lamy, Croft Castle, Columbia, Chaumontel, Capsheaf, Cross Pear, Colonel's Winter, Doyenne d'Hiver, Duvivier, Easter Beurre, Enfant Prodige, Fulton, Fig Extra, (Van Mons,) Fondante Rouge, Flemish Beauty, Fortunee, Great Citron of Bohemia, Gendesheim, Golden Beurre of Bilboa, Henri Quarte, Hericart, Jalousie, Long Green, Lewis, Urbaniste, Long Green of Europe, Messil d'Hiver, Muscadine, Maria Louise nova, Paradise d'Automne, Pacquency, Princess of Orange, Poire Rameux, P. Gerande, Queen of Low Countries, Rousselet Precoce, St. Andre, Summer Rose, Surpasse Virgalieu, St. Ghislain, Seckel, Seedling Maria, Surpasse St. Germain, Sucre Vert, Spence, from Rivers, Smith's Pennsylvania, Thompson, Winter Nelis, Wilkinson.

From Thomas Dowse, Cambridge, four dishes of Bartlett, and three of Gansel's Bergamot Pears.

From Josiah Gilmore, by G. L. Gilmore, Newton, Apples—Blue Pearmain, Bellflower, Blush Apple, Egg Apple, Hubbardston Nonsuch, Lady Apple, Roxbury Russet, Spitzenberg. Pears—Flemish Beauty, Seckel.

From John M. Ives, Salem, Pears—viz.: Andrews, Bartlett, Beurre Romain(?), B. Bosc, Belle Lucrative, Bezi de la Motte, Cushing, Columbia, Flemish Beauty, Fulton, Golden Beurre of Bilboa, Harrison's Fall Baking, Hacon's Incomparable, Jalousie, Long Green, Washington, Winter Nelis. Apples—a superior late Apple from Stratham, N. H.; a fine tender Sweet, Essex county variety. Plums—Green Gage, Reine Claude Violet, Red Gage of Downing, Sharp's Emperor. Peach—Ives's Early Melacoton.

From I. Fay, Cambridgeport, Pears—William's Bon Chretien, Capiaumont, Chaumontel, Easter Beurre, Golden Beurre of Bilboa, Louise bonne de Jersey, Napoleon, St. Michael, Seckel, and one unnamed. Peaches—Cooledge's Favorite, Jaques' Rareripe, Lemon Rareripe, Owen's do., Pike's Rareripe, Red and Yellow Rareripe.

From Parsons & Co., Flushing, L. I., and Brighton, Mass., Apples—thirty-two varieties, viz: Autumn Bough, Court of Wyck, Esopus Spitzenburg, Fallawater, Franklin's Golden Pippin, Fall Harvey, Fameuse, Fall Pippin, Federal Pearmain, Golden Russet, Herefordshire Pearmain, Hawthornden, Kilham Hill, Long Stem, Michael Henry Pippin, Marigold, Morris Sweeting, Maiden's Blush, Newtown Pippin, Newton Spitzenburg, Nonsuch, Pennock's, Pickman's Pippin, Rambo d'Ete, Scheenmaker, Seek-no-further, Tolman's Sweeting, Trimmer's Russet, Vandevere, Willis' Sweeting, Yellow Bellefleur. Pears—Lawrence, from the original tree.

From George R. Russell, West Roxbury, Grapes—Black Hamburg, Chasselas de Fontainebleau, Muscat of Alexandria, Royal Muscadine, Red Frontignan, Syrian, Wilmot's Black Hamburg, White Frontignan.

From Thomas Liversidge, Dorchester, Black Hamburg Grapes.

From M. H. Ruggles, Fall River, Pears—Bartlett, Durfee, Hull, Philips, Seckel, Wilbur, all fine specimens.

The following note from Mr. Ruggles, accompanied these Pears:—

*Durfee, or Shawl Pear.*—This variety originated on the farm of George Durfee, in Tiverton, R. I. The trunk of the parent tree is some eight or ten inches in diameter. It may be thirty or forty years old. It is a good bearer.

*Wilbur Pear.*—Originated on a farm owned by William Wilbur, in Somerset. It has been undergoing a change in some trees—the fruit is much larger and the flavor not as good as when the fruit was smaller.

*Phillips Pear*—Originated on the Phillips farm in Newport, R. I.; or I found it there, and have been able to trace all synonyms to that stock. The tree

from which I took the grafts is quite old—perhaps one hundred years, or more.

*Hull Pear*—Originated in Swanzey. The parent tree was found by Mr. Hull, and by him brought home and nurtured. On the same farm was found another native variety, which was called *Mason Pear*.* By some means the names have become confounded. Mr. Wilbur sent some of the latter to the Society a few years ago, by the name of Hull pears, which was very much liked, and perhaps the misnomer may thereby be perpetuated.

M. H. RUGGLES.

*Fall River, Sept.* 16, 1846.

From George C. Crowningshield, Brookline, Persian Green-flesh Melon.

From George Newhall, Dorchester, Pears—Williams' Bon Chretien, Beurre Bosc, Black Pear of Worcester, Cumberland, Catillac, Dix, Frederick of Wurtemburg, Fulton, Louise bonne de Jersey, Seckel, Urbaniste, Vicar of Winkfield. Peaches—Jacques.

From Samuel Downer, Jr., Dorchester, Pears—Louise bonne de Jersey, Golden Beurre of Bilboa, Vicar of Winkfield, Williams' Bon Chretien.

From F. W. Macondray, Dorchester, thirty-seven varieties of Pears—viz: Arch Duke Charles, Andrews, Belle et Bonne, Beurre Moire, B. Chori, B. Brown, B. Diel, B. Royal, B. Picquery, B. Easter, B. d'Amalis, Bezi de la Motte, Black Pear of Worcester, Chaumontel, Crassane, Catillac, Callebasse Bosc, Dix, Doyenne Gray, Figue de Naples, Fortunee, Flemish Bon Chretien, Glout Morceau, Long Green of Autumn, Louise Bonne de Jersey, McLaughlin, Marie Louise, Napoleon, Prince s St. Germain, Queen of the low Countries.

From Messrs. Winship, Brighton, thirty-three varieties of Pears, viz: Althorp Crassane, Angleterre, Williams' Bon Chretien, Belle et Bonne, Beurre Diel, B. de Capiaumont, B. Rance, B. Lucrative, B. d'Hiver, B. dore, Bergamot de Paysans, B. de Paques, B. Pentacote, Belle Lucra ive, Cumberland, Catillac, Dunmore, Doyenne d'Ete, Duchesse, Fulton, Fortunee, Glout Morceau, Heathcot, Jalousie de Fontenay, Louise bonne de Jersey, Lewis, Moorfowl Egg, Napoleon, Passe Colmar, Rousse Lench, Sageret, Winter Nelis, Wilkinson. Apples—London, Leadington, Grand Sachem.

From Warren's Garden, Brighton, forty-four varieties of Apples—viz: Atwater, Alexander, Bellflower, Baldwin, Blue Pearmain, Captain, Danvers Sweet, Detroit, Early Russet, Egg Apple, Gardner Sweeting, Golden Russet, Hubbardston Nonsuch, Hawthornden, Long Nonsuch, Lancaster, London, Minister, N. Y. Greening, Old Pearmain, Pumpkin Sweet, Porter, Prince Charles, Pomme de Neige, Roxbury Russet, Rhode Island Greening, Ribstone Pippin, Red Siberian, Red Bellflower, Sweet Russet, Spice, Spitzenberg, Seedling, Striped Spice, Vandervere, Warren's Spice, Yellow Bellflower, Yellow Siberian, and five other kinds. Pears—thirty-eight varieties, viz: Andrews, Williams's Bon Chretien, Buffum, Bezi de la Motte, Black Pear of Worcester, Bezi d'Montigney, Beurre Diel, Crassane, Catillac, Duchesse d'Angouleme, Easter Beurre, Flemish Beauty, Golden Beurre of Bilboa, Glout Morceau, Gansel's Bergamot, Heathcot, Iron Pear, Julienne (second crop,) Marie Louise, Napoleon, Seckel, Vert longue Panachee, Winter Nelis, Wilkinson, Washington, and twelve others for names; also, fruit of the Pyrus Japonica. Quinces—Orange, Musch-Musch, Pear Quince. Melon—Persian Green Flesh. Grapes—Black Hamburg, Black St. Peters, Red Chasselas, Palestine, and a fine basket of Fruit.

From Aaron D. Williams & Son, Roxbury, twenty-six varieties of Pears—viz: Angleterre, Andrews, Beurre d'Amalis, B. Brown, B. Easter, Bergamot, Belle Lucrative, Crassane, Flemish Beauty, Golden Beurre of Bilboa, Harvard, Louise bonne de Jersey, Messire Jean, Madotte, Napoleon, Passe Colmar, Rousselet de Rheims, Seckel, St. Germain, St. Michael, Summer Thorn, Urbaniste, Verte Longue, Vicar of Winkfield, Williams's Bon Chretien, Williams's Early. Apples—fourteen varieties, viz: Baldwin, Blue Pearmain, Daniel Wise, Fameuse, Gravenstein, Golden Pippin, Greening Sweet, Porter, R. I. Greening, Roxbury Russet, Ram's Horn, Russet Sweet, Summer Sweet.

From Alfred A. Andrews, Roxbury, Pears—viz: Beurre Diel, B. d'Aremberg, B. d'Amalis, Bezi de la Motte, Columbia, Colmar d'Aremberg, Fulton, Louise bonne de Jersey, Passe Colmar, Swan's Egg.

From P. J. Mayer, Weston, Apples—viz: Blue Pearmain, Baldwin, Congress, Hubbardston Nonsuch, Mackey Greening, do. Sweeting, Porter, Roxbury Russet, R. I. Greening, Trull Sweeting. Pears—Doyenne White, Williams's Bon Chretien. Peaches—three varieties.

Apples—from the farm of Moses Kingsley, Esq., Kalamazoo, Mich., gathered Aug. 28, 1848, viz: Baldwin, Pippin, Bellflower, Gilliflower, Cabushaw, Greening, Jonathan, Nonsuch, Red Winter, Spitzenberg, Seek-no-further, Twenty-ounce Pippin

From Nahum Stetson, Bridgewater, Grapes—viz: Black Hamburg, Chasselas d'Fontainebleau, Esperione, New Black Hamburg, Pitmaston White Cluster, Rose Chasselas, Syrian, Wilmot's Black Hamburg. Pears—viz: William's Bon Chretien, Duchesse d'Angouleme, Doyenne White, Figue de Naples, St. Ghislain. Peaches—Crawford's Early, Stetson's Seedling, Tice's Early, and three varieties names unknown. Plum—Fellemburg. Figs—Brunswick.

From Asa Clement, Dracut, Apples—viz: Haskell Sweeting, Kilham Hill, Parker's Sweeting, Porter, Russet Sweeting, R. I. Greening, York Apple.

From John Gordon, Brighton, Pears—twenty-three varieties, viz: Buffum, Brown Beurre, B. Rance, Duchesse, d'Angouleme, Easter Beurre, Flemish Beauty, Frederick of Wurtemburg, Glout Morceau, Henry IV., Locke's Seedling, Louise bonne de Jersey, Napoleon, Passe Colmar, Queen of the Low Countries, Stevens' Genesee, Doyenne White, Seckel, St. Ghislain, Vicar of Winkfield, Verte Longue, Williams's Bon Chretien, Wilkinson, Winter Nelis. Plums—Coe's Golden Drop. Three Watermelons.

From Thomas Needham, Brighton, by O. H. Mathers, Grapes—fourteen varieties, viz: Black Hamburg, Black St. Peters, Black Lombardy, Cannon Hall, Chasselas of Fontainebleau, Chasselas Musque, Frankendale, Golden Chasselas, Grizzly Frontignan, Muscat of Alexandria, Palestine, Purple Malvasia, Syrian, White Frontignan.

From Francis Dana, Roxbury, Peaches—four Seedlings. Quince Apple.

From John A. Kenrick, Newton, Apples—viz: Baldwin, Cogswell, Hubbardston Nonsuch, Hightop Sweeting, Porter. Pears—Beurre de Capiau-

* The variety under cultivation in this region as the "*Hull*"

mont, Flemish Beauty, Louise bonne de Jersey, Urbaniste, Vicar of Winkfield.

From John S. Sleeper, of Roxbury, Pears—Belle et bonne d'Hee, Beurre Diel, Doyenne White, Eyewood, Glout Morceau, Marie Louise, Vicar of Winkfield, Verte longue Panachee. Apples—Hubbardston Nonsuch.

From Galen Merriam, West Newton, Pears—Beurre Diel, Bezi de la Motte, Catillac, Duchesse d'Angouleme, Fortunee, Long Green, Martin Sec, Napoleon, Rousselet, Williams's Bon Chretien. Peaches—Crawford's Early, George IV., Lemon Rareripe, Morris White.

From Lewis Davenport, Milton, Apples—Baldwin, Golden Russet, Nonsuch, Peck's Pleasant, R. I. Greening, Roxbury Russet. Grapes—Black Hamburg. Peaches—Tippecanoe Cling.

Brandywine Pear—raised by Dr. Ellwood Harvey, near Chads-Ford, on the Brandywine, Delaware county, Penn.; two specimens.

From Isaac Jeffries, Chester co., Penn., Seedling Apples, viz: two red, called Jeffries, two yellow called Burlingham.

From Dr. Eshelmar, Chester co., Penn., a basket of Red Seedling Apples.

From the orchard of Wm. C. Hickman, near Westchester, Chester co., Penn., a basket of Peaches.

From B. K. Bliss, Springfield, Mass., very large Native Grapes.

From John F. Allen, West Cambridge, eight Cantelope Melons, very large.

From Mrs. Spaulding, South Reading, Fruit of the Passion Flower. Also, a Lemon, from a tree fourteen years old, having on it one hundred fine specimens. Apples—Crab and Pumpkin Sweet.

From George Walsh, Charlestown, Apples—viz: Baldwin, Nonsuch, Winter Greening, three varieties for name, and three varieties of Crab Apples. Pears—viz: Brown Beurre, Doyenne White, Williams's Bon Chretien, Winter Nelis, two varieties for name. Grapes—Isabella.

From W. Keith, West Roxbury, Apples—viz: Hightop Sweet, Pumpkin Sweet, Porter.

From John Henshaw, Cambridge, Pears—Beurre Diel, Duchesse d'Angouleme.

From J. Balch, Jr., Roxbury, Pears—four varieties, in a basket.

From S. D. Pardee, Esq., New Haven, Conn., Pear—Howel's Seedling, from the original tree, in the garden now owned by Mr. John English.

From John Arnold, Jr., Milton, Grapes—Black Hamburg, Zinfendal.

From Mrs. C. Hutchinson, Boston, Grapes—Black Malaga, one variety unknown.

From Artemas Rogers, Watertown, Plum—Roger's Purple. Pot of Honey, 7 lbs.

From Oliver Livermore, Brighton, one dozen Apples.

From John David D'Wolfe, Westchester county, N. Y., Pears—Seckel.

From John Albree, Newton Corner, Pears—Duchesse d'Angouleme, Easter Beurre, Napoleon, Williams's Bon Chretien. Apple—Pumpkin Sweeting.

From George Peirce, West Cambridge, Pears—Williams's Bon Chretien, fine. Porter Apples, fine.

From Mrs. James Adams, Roxbury, two dishes Seckel Pears, extra fine, one dish Chaumontel.

From Wm. B. Kingsbury, Pears—viz: Beurre Diel, B. Brown, Catillac, Bell Pear, Doyenne Gray, Iron Pear, Martin Sec, Passe Colmar, two varieties unknown.

From L. R. Mears, Dorchester, Seckel Pears.

From John H. Welch, Esq., Dorchester, thirteen varieties of Pears, viz: Beurre Diel, Dix, Duchesse d'Angouleme, Fulton, Frederick of Wurtemburg, Flemish Beauty, Gansel's Bergamot, Rousselet de Rheims, Swan's Egg, St. Michael, St. Ghislain, Urbaniste, Verte longue Panachee.

From Henry Vandyne, Cambridge, twenty-nine varieties of Pears, viz: Andrews, Beurre Spence, B. Diel, Charles of Austria, Doyenne White, Flemish Beauty, Frederick of Wurtemburg, Glout Morceau, Golden Beurre of Bilboa, Heathcot, Marie Louise, New Long Panachee, Passe Colmar, Prince's St. Germain, Queen of the Low Countries, Seckel, Spanish Bon Chretien, Turkish Bon Chretien, Treasure, Williams's Bon Chretien, Washington, and seven varieties unknown. Plums Huling's Superb, Coe's Golden Drop. Seedling Nectarine.

From Charles H. Tomlinson, Schenectady, N. Y., Gansel's Bergamot Pears, large.

From Elbridge Tufts, Cambridgeport, Apples, viz: Baldwin, Blue Pearmain, Cory Greening, English Pearmain, Fall Pippin, Ribstone Pippin, Roxbury Russet, Striped Red Sweeting, Tuft's Baldwin, (seedling,) York Russet, kind unknown.

From James Eustis, S. Reading, twenty-five varieties of Apples, viz: Ben, Burr's, Bough, Harvest, Baldwin, Columbian Pippin, Dutch Codlin, Golden Ball, Hubbardston Nonsuch, Jewett's fine Red, Kilham Hill, Kittredge Sweet, Nonsuch, Orange Sweet, Porter, Philadelphia Pippin(?), Roxbury Russet, R. I. Greening, Spice Apple, Sweet Winter Russet, Triangle, Trunnell. Seedling Peach.

From Lewis Wheeler, Cambridgeport, Pears—Dunmore, Williams's Bon Chretien. Plums—Lombard, White Gage.

From Enos Bartlett, Roxbury, Pears—Culotte de Swisse, Frederick of Wurtemburg, Gansel's Bergamot, Heathcot.

From Hovey & Co., one hundred and two varieties of Pears—viz.: Abricote, Angleterre, Beurre d'Aremberg, B. Brown, B. d'Amalis, B. Capiaumont, B. Diel, B. Easter, B. Rance, B. Romaine, B. d'Anjou, B. de Moire, B. de Beaumont, B. Rose, Belle et bonne de Hee, Belle et Bonne, Belle Lucrative, B. Epine Dumas, B. Heloise, B. Henriette, B. de Thouars, B. Esquermes, Bergamot de Bruxelles, B. Cadette, B. Parthenay, Bon Chretien (Williams's,) B. Spanish, B. Fondante, Belmont, Chaumontel, Comte de Lamy, Cross, Colmar d' Aremberg, C. du Lot, Chaptal, Coter, Doyenne white, D. Boussoch, D. Santelete, D. Musque, Duchesse de Mars, D. d'Angouleme, D. de Berri, Dunmore, Duvernay, Dumortier, Esperine, Flemish Beauty, Forelle, Figue de Naples, Fondante Rouge, Glout Morceau, Grosse Calbasse (Jamin,) Hull, Leon le Clerc (old,) Leon le Clerc Van Mons, Louise Bonne de Jersey, Le Cure, Las Canas, Maria Louise, Monarch (Knight's,) Madotte, Napoleon, Ne plus Meuris, Passe Colmar, Poire Henriette, Rousselet de Rheims, Seedling Maria, Seckel, Styrian, Sargeret (V. M.,) Soldat Laboureur(?) Sieulle, Verte longue d'Automne, Vicompte de Spoelberch, six kinds unnamed, and the following "new varieties"—viz.: Adele de St. Denis, Belle Apres Noel, Beurre Baud, B. Supreme, B. Benoits, Bezi Veterans, Bonne des Zees, Captif St. Helene, Dingler, Duc de Bordeaux, Episcopal, Ferdinand de Meester, Girardin, Inconnue Van Mons, Jersey Gratioli, Poire de Carisie, St. Nicholas, St. Denis, Triomphe de Jodoigne, Truckhill Bergamot, and 292 of Van Mons. Apples—viz.:

Baldwin, Court Pendu, Carthouse, Downton Pippin, Hawthorndean, Hormead Pearmain, Herefordshire Pearmain, James River, Jonathan, Pleasant Valley Pippin, Russet(?), Roxbury Russet, R. I. Greening, Sturmer Pippin, three varieties unnamed. Grapes—viz.: Bourdelas, Black Prince, Black Hamburg, Wilmot's do., do. No. 16, Chaptal (new,) Chasselas of Fontainebleau, De Candolle (new,) Esperione, Frontignan, (White,) F. Grizzly, Golden Chasselas, Moranet (new,) Muscat Blanc Hatif, M. of Alexandria, M. of Tottenham Park, M. of Portugal, M. Cannon Hall, M. de la Mi Aout, Syrian, Scharges Henling (new,) White Nice, Zinfendal. Guava, (Psidium Cattleynum.) Melons—Beechwood, Christiana, Nutmeg, Peach, Persian. Peaches—Favorite, Sweet Water, White Ball. Oranges and Lemons. Plums—Semiami, Roger's Blue.

From Bissell & Hooker, Rochester, N. Y., Apples, viz.: Fameuse, Fall Juneting, Hooker, Pomme Gris, Swaar. Pears, viz.: Swan's Orange, Stevens's Genesee, White Doyenne.

From James Munroe, Cambridge, Pears—Calebasse, Capiaumont, Vicar of Winkfield, Passe Colmar.

From Messrs. S. & G. Hyde, Newton, Apples—forty-six varieties, viz.: Andover Harvest, Apple from Worcester, Baldwin, Blessings (from Vermont,) Bough Harvest, Bellefleur, Blue Pearmain, Codlin, Cathead, Detroit, Egg Apple, French Nonpareil, Flanders Pippin, Fuller's Apple, French Pippin (fall,) Green Russet, Gravenstein, Gardner's Sweet, Hubbardston Nonsuch, Long Nonsuch, Newton Spitzenberg, Newton Pippin, No Core, Old Pearmain, Old Red Nonsuch, Pelham's Sweet, Picena Apple, Philadelphia Pippin, Porter, Pound Royal, Pumpkin Sweet, Pearmain, Roxbury Russet, Ribston, Pippin, Red Crop, Red Sweet, R. I. Greening, Spitzenberg, Seaver's Sweet, Sudbury Pound (fall,) Strop Apple (fall,) Sweet Greening (fall,) Winter Spice, Yellow Apple, Yellow Crab.

From John A. Hall, Raynham, Apples—Baldwin, English Pearmain, Nonsuch, Pomme water, Peck's Pleasant, R. I. Greening, Roxbury Russet, Talmon Sweeting, Tender Sweet, Wing Sweeting.

From James Cruickshanks, Waltham, Water Melons—Black Spanish, Mountain Sprout, Long Island Round.

From Henry H. Crapo, New Bedford, Ananas, Beurre d'Anjou, B. de Beaumont, B. de Capiaumont, B. Golden of Bilboa, B. Diel, B. d'Aremberg, Colmar d'Aremberg, Dunmore, Duchesse d'Angouleme, Doyenne Boussoch, Fulton, Fondante d'Automne, Holland Bergamot, Hacon's Incomparable, Julienne, Jean de Witt, Jalousie de Fontenay Vendee, Louise bonne de Jersey, Madotte, Napoleon, Passe Colmar, Seckel, Vicar of Winkfield, Vert Longue, Williams's Bon Chretien and five varieties for name. Apples—Autumn Bough, Twenty-ounce; grown upon the farm of Humphrey Howland, of Scipio, Cayuga county, N. Y.

From John Fisk Allen, of Salem, thirty-three varieties of Grapes, viz.: Black Hamburgh, Wilmot's new Black Hamburgh, Wilmot's No. 16, Black Hamburg, White Gascoigne, Esperione, Grizzly Frontignan, White Frontignan, Hansteretto, Black Sweet Water, Black Prince, Portuguese Muscat, Zinfendel, Syrian, Chasselas de Fontainebleau, Chasselas de Bar sur Aube, Red Chasselas, Rose Chasselas, Golden Chasselas, White Sweet Water, White Tokay, White Nice, De Candolle, Muscat of Lunel, Muscat of Alexandria, Black St. Peter's, Black Lombardy, Chaptal, August Muscat, Red Traminer, Whortley Hall Seedling, Ferral' Royal Muscadine, Isabella. Pears—Ronville' Gansel's Bergamot, Seckel, Fondante d'Automne. Peaches—Bellegarde, La Fayette, Yellow Rareripe, Tippecanoe, Teton de Venus, Kenrick's Orange. Plums—Coe's Golden drop.

From Weebern, Wyoming county, N. Y., by F. K. Phœnix, of the Delavan Nursery, Delavan, Wisconsin. Apples—Edgerly Sweet, Durham, or Flower of Edinburg, Federal, Changeable, Tift Sweet, Sweet Gilliflower, Lenox, Detroit Red, Perry Russet, Pound Sweet, September Sweet, Striped Pippin, Ox Apple, Pearmain, White Bellflower, King George's Favorite, Green Sweet, King Apple, Griffith's Sweet, Harvest Gilliflower, Early Sweet Red, and nine other kinds nameless, or merely local names.

From James P. Oliver, Lynn, Oliver's Russet Pears, from the original tree.

From H. Snyder, Kinderhook, N. Y., Doyenne White Pears, and Vandervere Apples.

From R. Whittier, Chicopee, Pears—Brown Beurre, Bleeker's Meadow, Easter Beurre, Louise Bonne de Jersey, Seckel.

From Aaron D. Capen, Dorchester, Pears—Beurre de Capiaumont, Duchesse d'Angouleme, Louise Bonne de Jersey, Passe Colmar, Seckel. Apples—Golden Russet, and a variety unknown. Seedling Peaches. Melons.

From Charles Sprague, Boston, Spanish Filberts grown in the city of Boston.

From Charles E. Fisk, Natick, Porter Apples.

From James Arnold, New Bedford, Grapes—Black Hamburg, Chasselas of Fontainebleau, Royal Muscadine, Royal Muscat, St. Peters.

From Geo. Jacques, Worcester, Pears—Coffin's, White Doyenne, Virgalieu. Peach?—11 1-3 inches in circumference; weight, 11 5-8 ounces.

From Dr. W. W. Cutler, South Reading, Apples, River?

From Samuel Pond, Cambridgeport, Pears—Andrews, Beurre Diel, Cushing, Columbia, Doyenne White, Dix, Flemish Beauty, Fondante d'Automne, Louise Bonne de Jersey, Marie Louise, Napoleon, Seckel, Surpasse Virgalieu, Urbaniste, Vicar of Winkfield, Williams's Bon Chretien.

From Isaac Pullen, Hightstown, N. J., Peaches, Crawford's Late, Melacoton.

By Isaac P. Davis, Endicott Pears, from the original tree, 220 years old.

From G. F. Chandler, Lancaster, Apples.

From Wm. Adams, Woburn, a Water Melon, weighing 37 1-2 lbs.

From N. N. Dyer, South Abington, Apples—Black Detroit, Brown Jacket, Bedford Sweeting, Crow's Egg, Fameuse.

From J. M. Everett, Foxboro', Native Grapes, for premium.

Extra fine specimens of Seckel Pears, from the New Jersey Horticultural Society, came too late for exhibition.

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## FLOWERS EXHIBITED.

From Marshall P. Wilder, President of the Society, a great variety of fine Plants, consisting of large Camellias, &c. Also, fine Dahlias, Phloxes, Roses, and other Cut Flowers.

From A. Aspinwall, Roses, in variety.

From John A. Lowell, a great variety of superb Plants.

From Thomas Liversidge, Dorchester, a variety of Plants.

From Messrs. Winship, fine Pot Plants, Bouquets, Dahlias, &c.

From John Albree, Dahlias, Roses, &c.

From F. R. Bigelow, flowers of Cactus triangularis.

From John Hovey, Dahlias, Roses, &c.

From Hovey & Co., a fine display of Green House plants. Also, Cut Flowers and Bouquets.

From Charles B. Shaw, Dedham, by T. Murray, five pots of Coxcombs, and one do. of Grass Amaranthus.

From Geo. C. Crowninshield, by John Quant, fine specimens of Green House Plants.

From Lewis Davenport, a great variety of fine Roses, Dahlias, &c.

From Parker Barnes, Cut Flowers, Dahlias, &c. Also, a large Grass Bouquet, Design, &c.

From Warren's Gardens, by J. Cadness, a large collection of Plants.

From O. H. Mathers, by T. Needham, a variety of fine Pot Plants.

From H. T. Haseltine, Asters, Verbenas, Cockscombs, &c.

From J. Mann and Mrs. E. Parker, fine Grass Bouquets.

From Wm. Kenrick, by Mrs. Russell, an arbor Design.

From Mrs. J. Dyer, a handsome Design.

From M. E. C. Brown, J. Shekeen, Miss Kenrick, Miss Mary Kenrick, and J. Gilmore, Designs of various sorts.

From John Parker, very fine Dahlia.

From Joseph Breck & Co., Dahlias, and other Cut Flowers.

From James Nugent, Dahlias, Roses and Bouquets.

From B. K. Bliss, Springfield, two fine Cockscombs, and a Design.

The committee have not received the names of many plants contributed, some of which were very fine, nor do they know from whence they came.

## VEGETABLES EXHIBITED.

From J. E. Teschemacher, East Boston, New Cabbage—sown 19th of April, in the open ground; only manure, one tablespoonful of guano; the finest flavored, and the most delicate of the Cabbage tribe; have been grown of 15 lbs. wt.—introduced and distributed by Mr. Teschemacher, in 1847. Sprouts from the same. New Cabbage—Early Northern; seed from St. Petersburg, Russia, received by the kindness of Horatio R. Storer; sown in the open ground, 19th April; ready for table, 9th July. Sprouts of the same. New String Bean—seed from California; sown first week in June; first gathering, 1st of August. The same plants continue to produce abundantly till the frost: the specimen exhibited flowers, young beans and ripe seed on the same stem; extremely tender; flavor very delicate; grows about three feet high; introduced by Mr. T. White Beet root, from which sugar is extracted in France and Germany. Seed from France, 1848. Onions, Carrots and Scotch Kale,—exhibited, also, to show the action of guano. All these vegetables were raised on a very poor soil, which has had no manure for three successive years but guano, at the rate of about 400 pounds to the acre.

From James Cruickshanks, German Curled Greens, or Scotch Kale; Scotch Flag Leek; Bassano Beet; Early Horn Carrot; Stringham do.; Orange do.; brace Douglass Champion Cucumber, new; brace Victory of England do.; Lima Beans, for table; quantity of do. ripe; Custard Winter Squash, Marrow do., Club do.

From D. Denny, Dorchester, Drumhead Cabbages.

From G. C. Crowninshield, by John Quant, Celery and Egg Plants.

From Lewis Davenport, Milton, a peck of Sweet potatoes.

From Elbridge Tufts, Cambridgeport, Canada Squash, Crooknecked Striped do., six from one seed.

From Nahum Stetson, South Bridgewater, Mammoth Tomato; Club Gourd.

From F. W. Macondry, Dorchester, Pumpkins; Blood Beet, Sugar do.; Marrow Squash, White Crooknecked do., Canada Crooknecked do.; Royal Cape Lettuce; Orange Carrot; Large Dutch Parsnip; Corn; Sugar Pumpkin; Drumhead Cabbage; Pea Beans, Horticultural do., Seva do., Early China do., Russian bush do., Lima do.; Cucumber; Seymour Celery; three varieties of Tomatoes, and thirty-four varieties of Potatoes.

From S. W. Cole, Chelsea, Potatoes, viz: Hill's Early, Egg, White Kidney, Knevet's Defiance, Holmes's Early, White Bluenose, Hall's Early, Early June, Wait's Oval, Light Chenango, Chenango, Superior Chenango, do. do., White Chenango, Carter, Snowball, Victoria, Wait's Round, Kidney, St. Helena, Hancock, Butman, Long White, Wait's Long, Longneck, Apple, Mohawk or Seal's foot, Black, Peach Blow, Rohan, Calico, Waterloo, Cranberry, Clinton White, American Blues, Prince Edward, Michigan, Connecticut, Orange, Prince Albert, Pinkeye, Parker's Seedling, Stockbridge, Dean, Lady's Finger, four varieties nameless, and thirty-seven seedling Potatoes, of 1848. Crooknecked Squash, Marrow do., Blood Beet.

From Herbert S. Cole, a basket of Potatoes, of various kinds.

From A. D. Williams & Son, Roxbury, Pumpkins, Blood Beet, Carrots, Ruta Baga, Drumhead Cabbage, Savoy do., Salsify, Canada Squash, Marrow do., Celery, Turnip Beet, Tomatoes, Corn.

From George Pierce, W. Cambridge, Purple Brocoli, Giant Celery, Red Cabbage, White Cauliflower, Marrow Squashes.

From John Albree, Newton Corner, Egg Plants.

From Daniel Brims, Roxbury, Celery.

From Alex. McLennan, Watertown, Egg Plants.

From Messrs. Hovey & Co., Sealsfoot Potato, Shepherd's Early do.

From Azell Bowditch, Roxbury, Savoy Cabbage, Northern do., Drumhead do., Sweet Corn, Yellow do., Gourd.

From Benj. V. French, Braintree, Early June Potatoes, Hill's Early do., Knevet's Defiance do., Blood Beet, Yellow Turnip do., Turnip Blood do., Mangel Wurtzel, Purple Egg Plant, White do. A fine specimen of Egyptian Wheat.

From Mrs. Spaulding, South Reading, Blood Beets.

From John Schouler, W. Cambridge, by J. Gilmore, Blood Beets.

From N. N. Dyer. S. Abington, two Canada Crookneck Squashes, two years old.

From Pickering Dodge, Salem, two German Cabbages.

From Warren's Gardens, Brighton, a bouquet of Egyptian Wheat, Snake Cucumber, Yard Bean.

From J. Balch, jr., Roxbury, Tomatoes.

## PREMIUMS AND GRATUITIES.

Baskets of Fruit.—For the best basket of Fruit, to Otis Johnson, $10.—For the second best, to Messrs. Hovey & Co., $7.

PEARS.—For the best twelve varieties of Pears, consisting of twelve specimens each, the first premium to Samuel Walker.—The second premium, to Hovey & Co.—Third premium, to Josiah Lovett.

For the best dish of Pears—First premium to James Adams, for his dish of fine Seckles.—For second best dish, to Samuel Pond, for his dish of Dix Pears

The Committee recommend gratuities of the Society's Medal, of five dollars, to the following named persons, for beautiful specimens of Pears.

John Gordon, Fred. W. Macondry, Ralph Crooker, Henry Vandine, C. Newhall, Alfred A. Andrews, Enoch Bartlett.

And they further recommend a gratuity of a Gold Medal, or piece of Plate, of the value of Twenty-five Dollars, to Marshall P. Wilder, President of the Society—also, a gratuity of like value, to Robert Manning, of Salem, for the extensive collection of Pears exhibited by those gentlemen.

GRAPES.—To George R. Russell, for the best five varieties, $15.—To Thomas Needham, for the best three varieties, $10.—To J. F. Allen, for the best two varieties, $7.—To Nahum Stetson, for the best one variety, $5.

The Committee recommend a gratuity of fifteen dollars to J. F. Allen, for his extensive collection of Grapes, many of which are new varieties. Also, to Otis Johnson, B. D. Emerson, and James Arnold, of New Bedford, the Society's Medals, of five dollars each, for their well grown specimens.

APPLES.—For the best twelve varieties, of twelve specimens each, to J. L. L. F. Warren, the Society's Plate of $25.—For the second best do., to Messrs. Hyde, $10.—For the third best do., to E. Tufts, $5.

Gratuity for the largest collection—To Benj. V. French, the Society's Medal or Plate, of $25.

For the best basket of Fall Apples, to George Pierce, $6.—For the second best do., to Josiah Stickney, $4.

The committee would beg leave to mention the following exhibitors as deserving of a gratuity of the Society's Medal, of five dollars each, for beauful specimens, viz.: James Eustis, A. D. Weld, Anson Dexter, Hovey & Co., A. D. Williams & Son, R. Manning and A. Hall.

FLOWERS.—The Judges on Flowers, report and recommend as follows:

POT PLANTS.—For the best collection, to John Cadness, $15.—For the second best do., to John Quant, $10.—For the third best do., to Hovey & Co., $8.—For the fourth best do., to Messrs. Winship, $5.

COCKSCOMBS.—First premium, to James Nugent, $3.—Second premium, to Alex. McLennan, $2.

DOUBLE BALSAMS.—First premium, to James Nugent, $3.

The Judges recommend a gratuity of ten dollars to Thomas Willot, for a fine display of plants, and to Thomas Cowen, for a fine plant of Araucaria excelsa, three dollars.

BOUQUETS.—*Vase Bouquets.*—For the best pair for the Bradlee Vases, to Thomas Cowen, $10.—Second premium, to Hovey & Co., $6.—For the best pair for the Society's Vases, to Hovey & Co., $10.—Second premium, to E. A. Story, $6.

*Mantel Bouquets.*—For the best pair, to John Cadness, $8.—For the second best do., to James Nugent, $6.—For the third best do., to E. A. Story, $5.

The Judges recommend the following gratuities, viz.:—For Grass Bouquets and Designs, five dollars each, to Miss H. Barnes, Mrs. J. Mann, Mr. M. E. Parker, Mr. J. Dier, Miss Russell, and J. Sheen. To Miss H. Barnes, and Mrs. E. C. Brown, two dollars each; to Miss Mary Kenrick, and J. Gilmore, one dollar each.

Also, to John Cadness, for a splendid pair of Bouquets, ten dollars.

The Flower Committee recommend a gratuity of five dollars to Lewis Davenport, for a fine display of Roses.

VEGETABLES.—The committee to whom was assigned the duty of awarding premiums on Vegetables, at the Annual Exhibition, submit the following report:

For the best display and greatest variety of Vegetables, to F. W. Macondry, $10.—Second do., to A. D. Williams, $6.

GRATUITIES.—To S. W. Cole, for a fine show, consisting of forty-five varieties of Potatoes, thirty-seven of which were seedlings of 1848, $10.

To George Pierce, for fine Blue and White Brocoli, $5.

To Daniel Brims, for fine Celery, $5.

To J. E. Teschemacher, for a fine display of Vegetables, many of them new, $5.

To James Cruickshanks, for a fine display of Vegetables, $3.

To A. Bowditch, for fine Cabbages, $2.

To A. McLennan, for superior Egg Plants, $2.

To E. Cameron, for the largest Drumhead Cabbages, $2.

To N. Stetson, for large Tomatoes, $1.

To B. V. French, and Hovey & Co., for a fine show of Potatoes, $1 each.

At no former exhibition has there been so fine a display of Vegetables. The committee would congratulate the Society on the increased interest manifested in this department, and hope that it will be an encouragement to future efforts.

## BUSINESS MEETINGS.

*Nov.* 4.—A communication was received from R. BUNNELL, Bridgeport, Ct., in relation to a preventive against the attacks of the curculio, which was referred to the Committee on Fruits.

*Nov.* 18.—Mr. Walker submitted the following:

*Horticultural Hall, Boston, Nov.* 11, 1848.

TO EBENEZER WIGHT, ESQ.—*Sir:* In pursuance of a vote of the Massachusetts Horticultural Society, passed at a stated meeting, held on the second day of January, and in behalf of the committee appointed at the same time, who were instructed with carrying its object into effect, I have the honor herewith to present you with the accompanying piece of Plate. You will please to accept it as a token of the acknowledged esteem of the society, for your assiduous and unwearied zeal in the performance of the duties so long incumbent upon you, as the Recording Secretary of the institution.

Allow me to express, sir, as the wish of the committee, that this memorial may ever serve to recall to your memory pleasing reminiscences of the past, and to cheer and stimulate you in all your present and future exertions, in support of that science, to whose advancement our society and its numerous members are deeply devoted. Per order.

SAMUEL WALKER,
Chairman.

*Boston, Nov.* 13*th*, 1848.

SIR—I received the piece of Plate, referred to in your letter of the 11th inst., with grateful emotions, as a memento of the friendly regard of the members of the Massachusetts Horticultural Society. Please return to them my sincere thanks for their munificent gift.

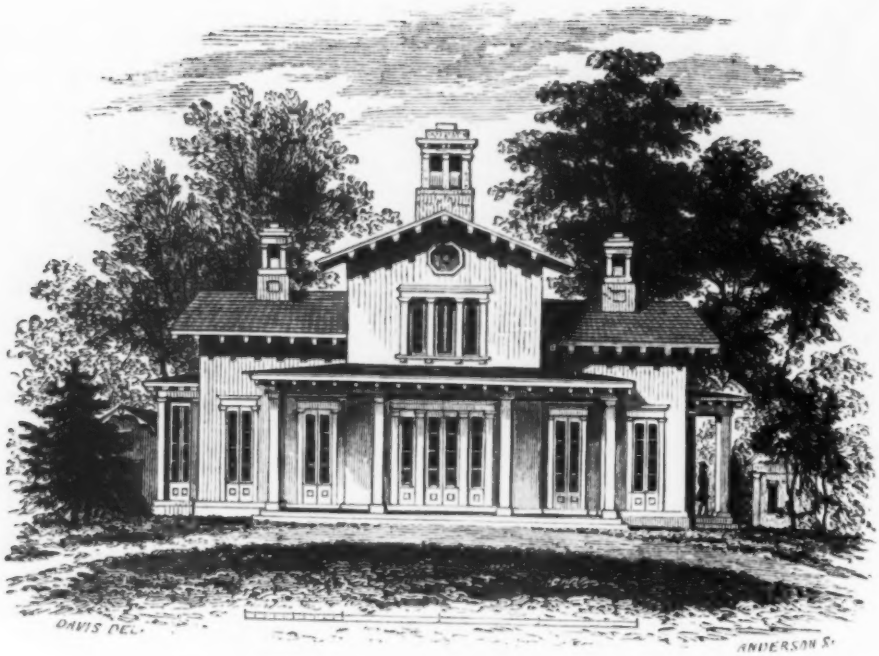
In looking back to the time passed as their Recording Secretary, I call to mind many names among the most devoted and successful cultivators of horticultural science, and number, among my associates in those hours, men dear to intellectual and social progress.

I shall long remember, with increasing satisfaction, the kind and felicitous words in which you have expressed to me the wishes of the society. Your ob't servant,

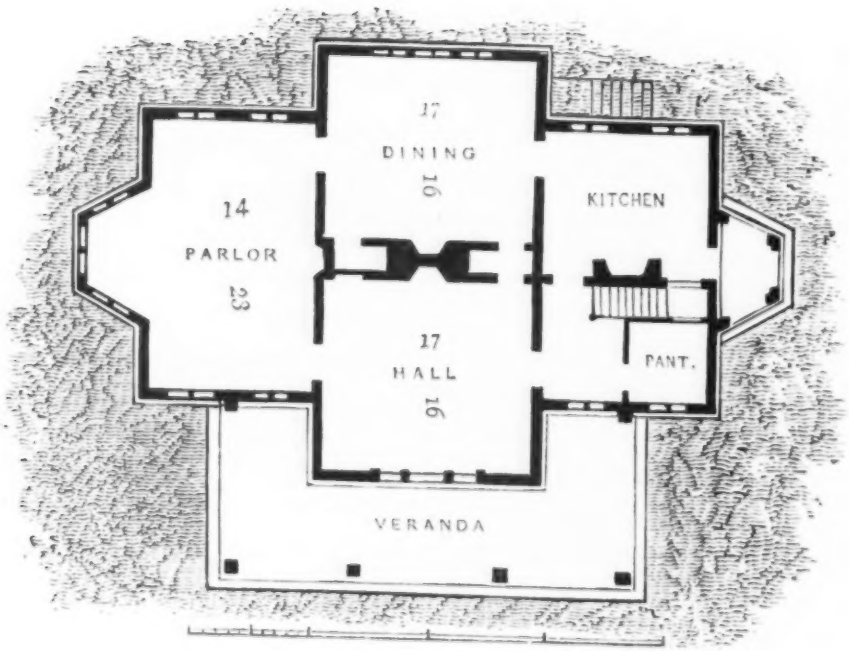
EBENEZER WIGHT.

To Samuel Walker, Esq., *Chairman.*

[The report of the proceedings at the business meetings of the society, came to hand at so late an hour, that the remainder is necessarily deferred till our next.]




DESIGN FOR A SMALL VILLA.




FIRST FLOOR.